

LITHOGRAPHY

.....

Modern

Presented in a new
Music by Lithography
Blanket by G. G. G.
The new 10-1
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1957



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(Recalling the first
Great American face . . .)
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Set in 1808.*
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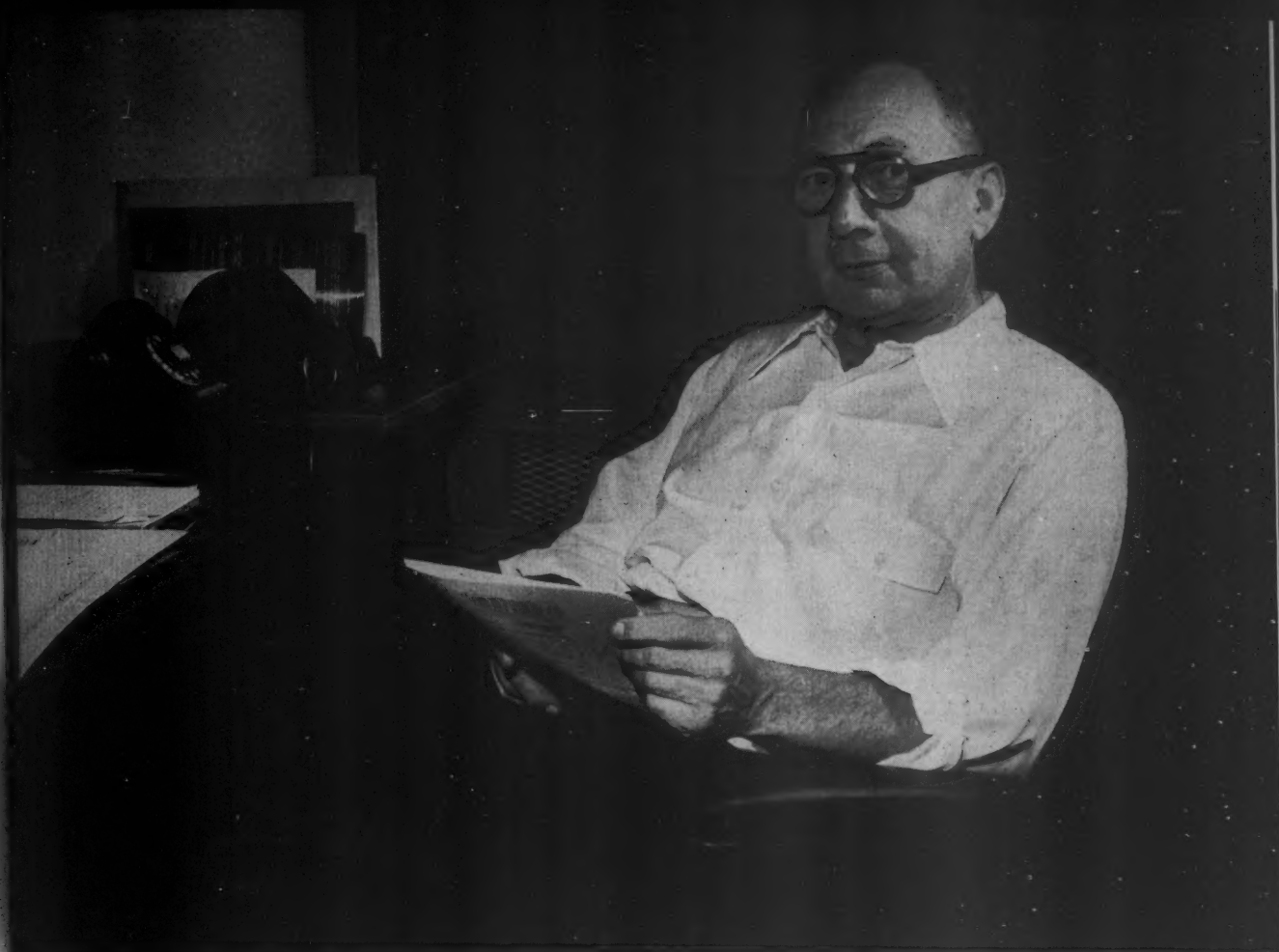
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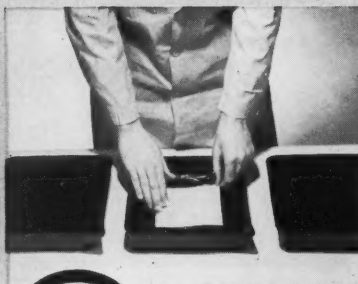
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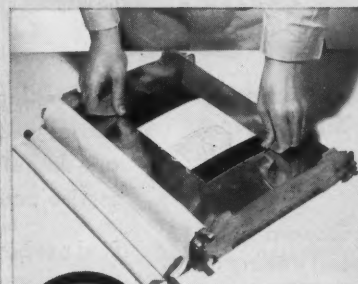
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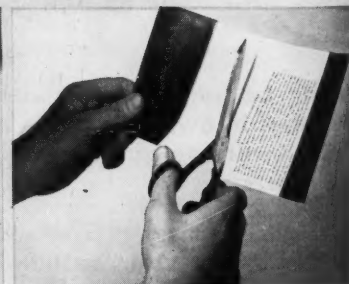
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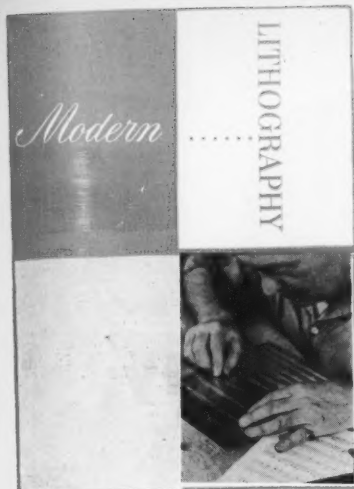
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COVER

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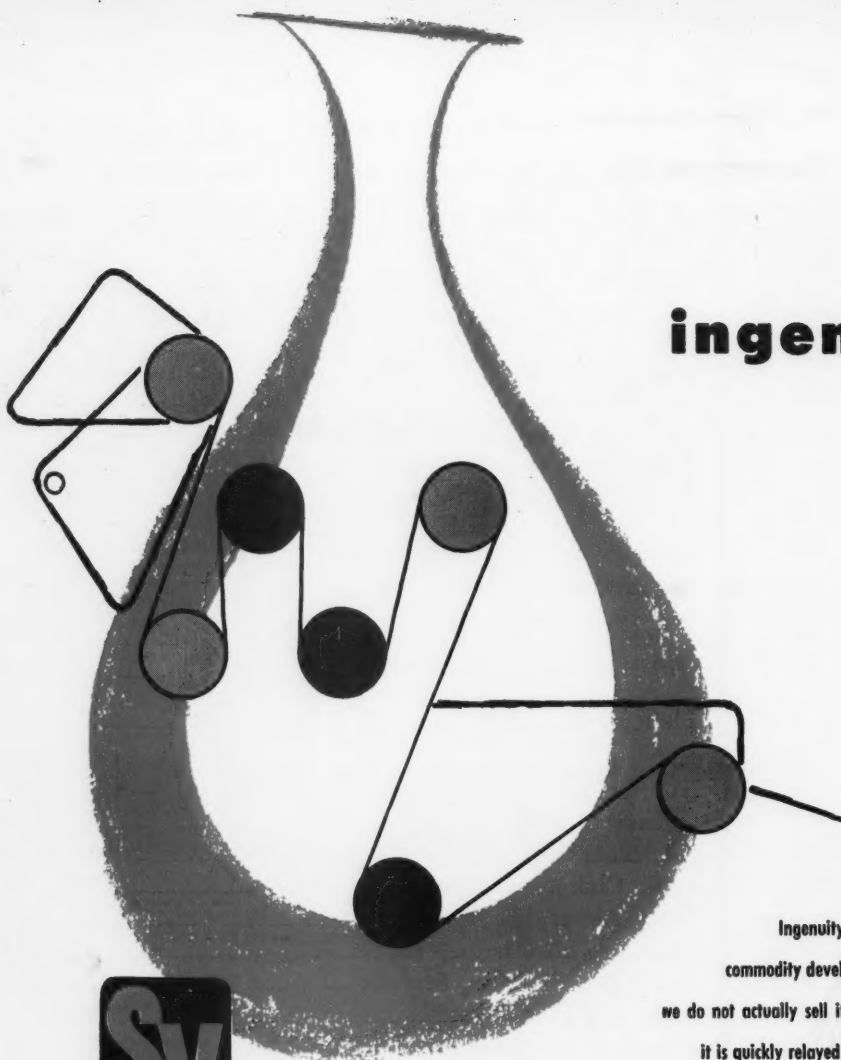
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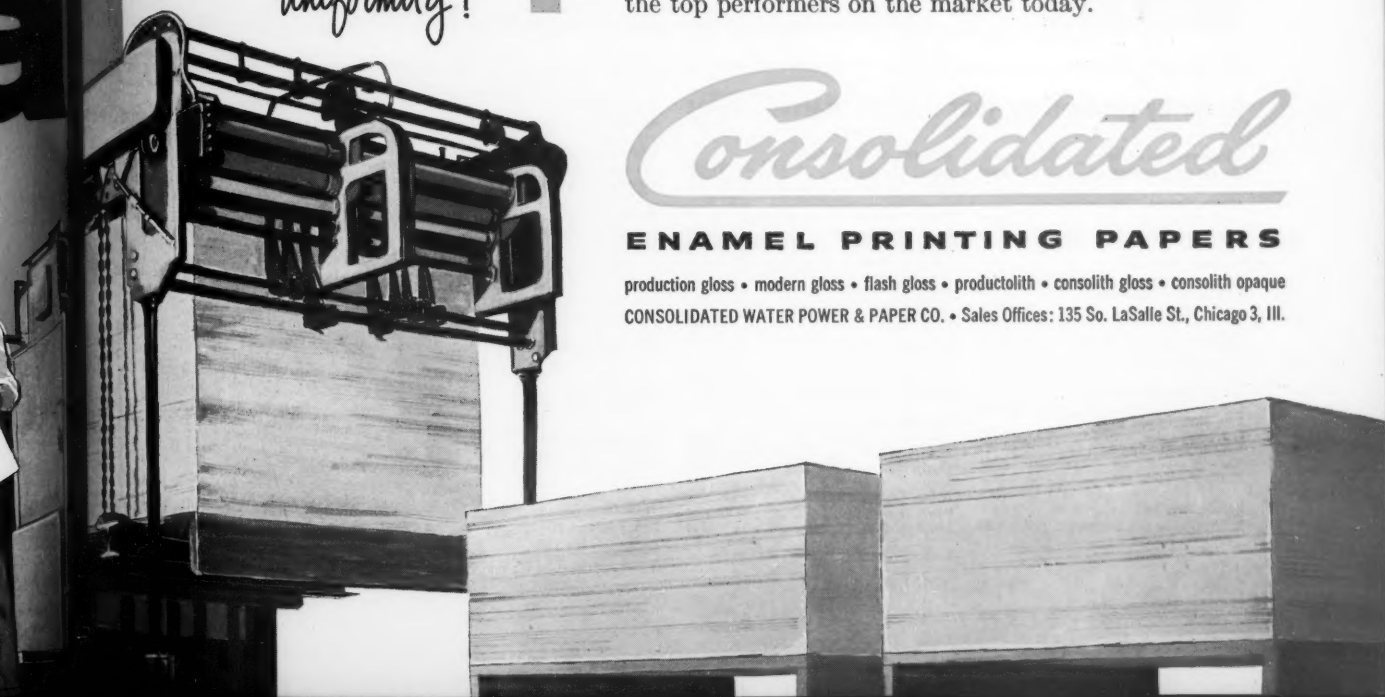
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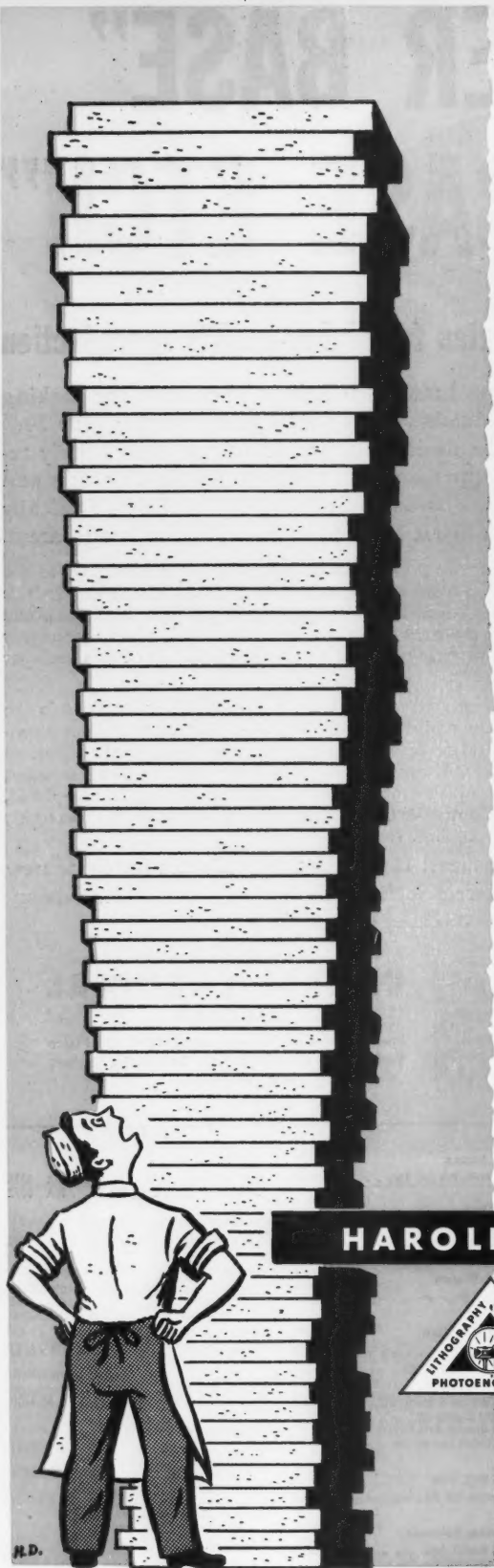
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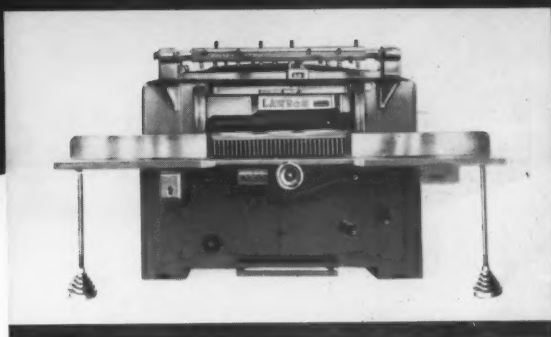
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MODERN LITHOGRAPHY, March, 1956

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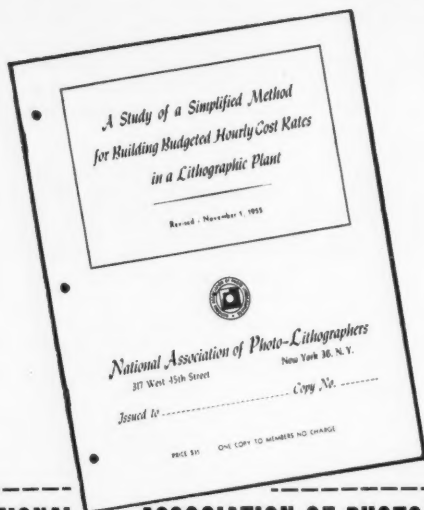
MODERN LITHOGRAPHY, March, 1956

15



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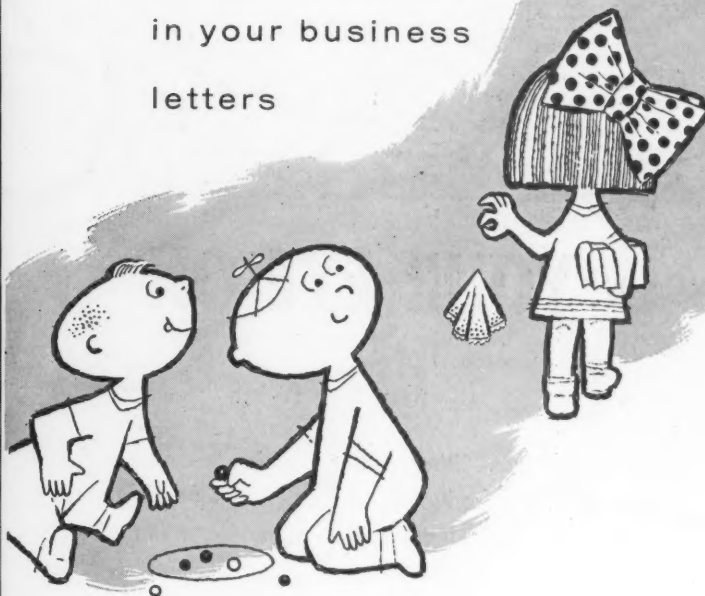
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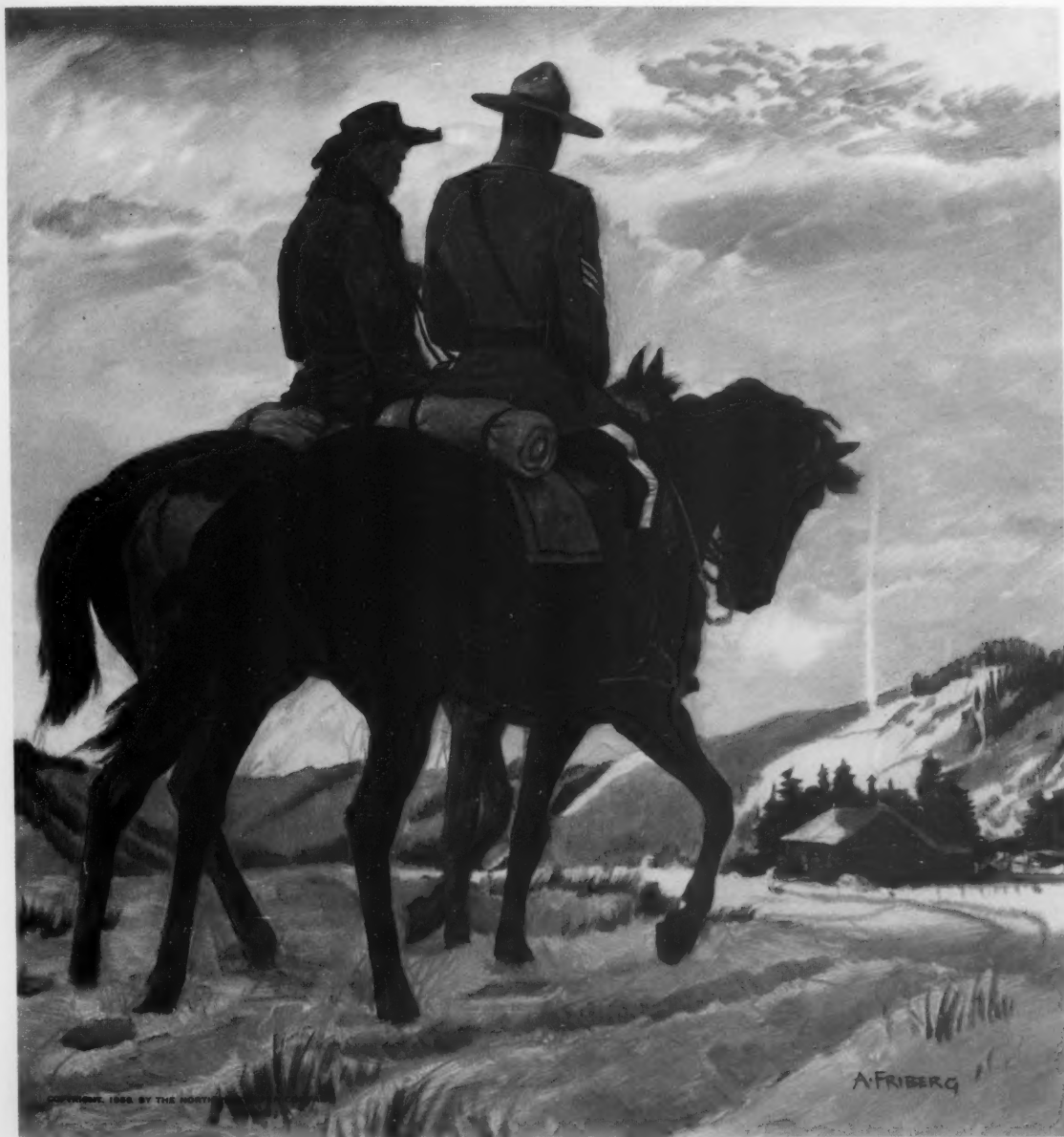
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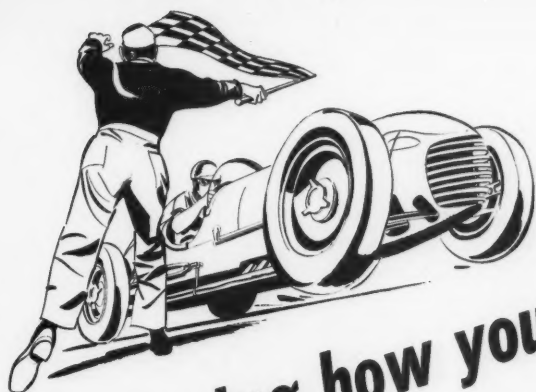
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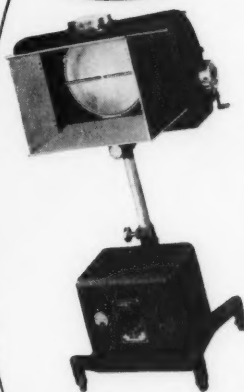
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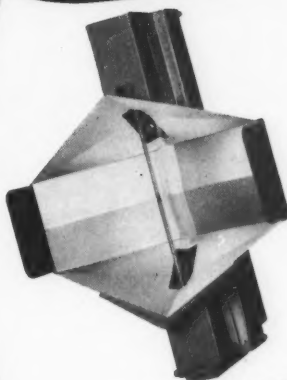
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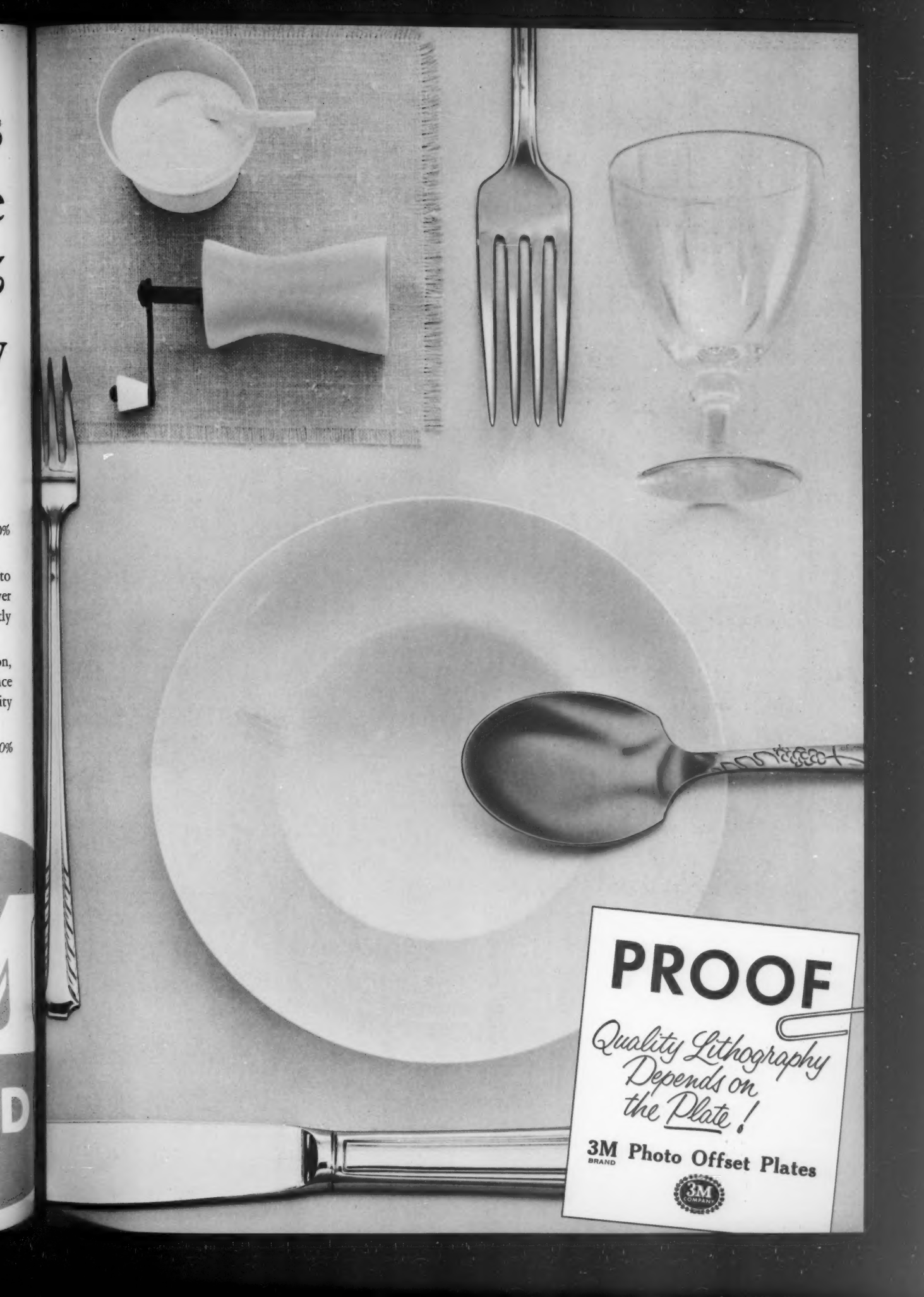
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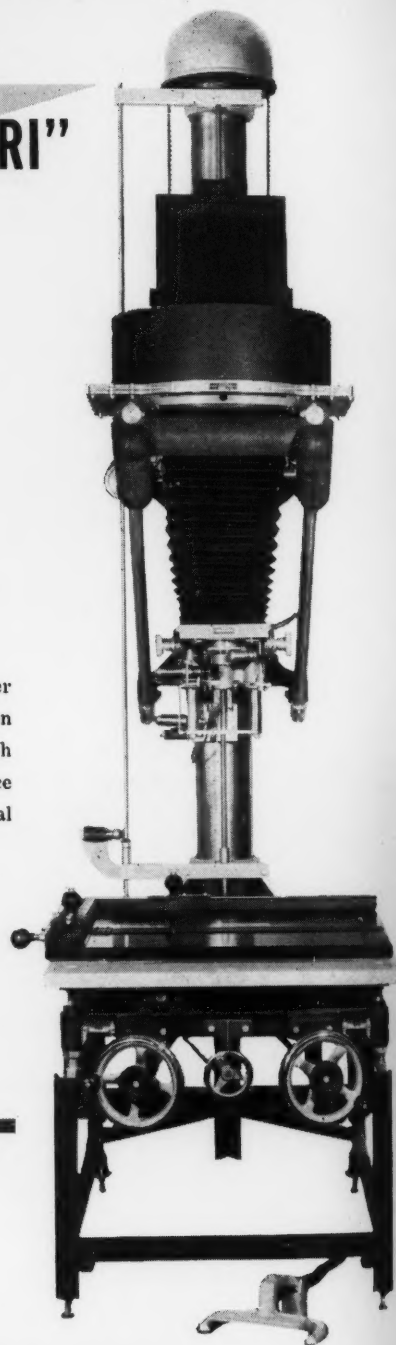
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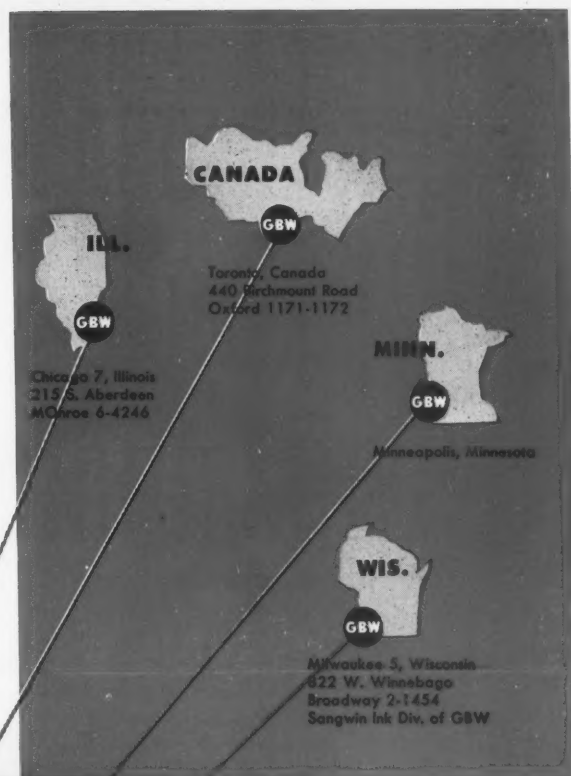
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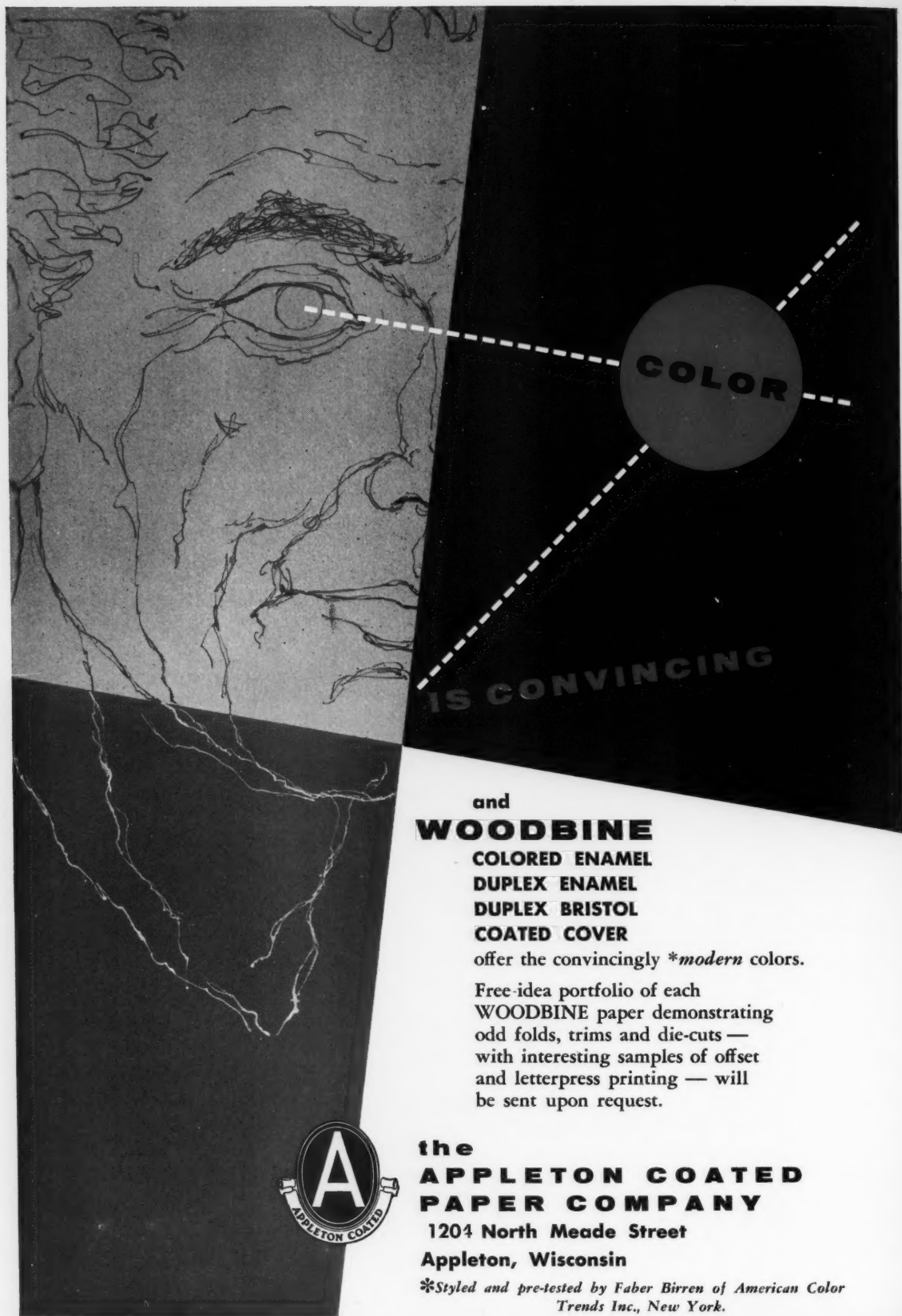
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1

This man's customers demand and pay for the highest quality multiple color work; he matches ticklish progressives, reproduces tints and tones. He uses IDEAL MASTERLITH vulcanized oil rollers throughout his press.

He knows it takes craftsmen to handle these rollers whose fine textures are the acknowledged aristocrats of the lithographic field. He depends upon these rollers to produce the quality he requires, knowing that exhaustive tests and years of usage have proved them to be unsurpassed for color transference and steadfastness of tone, free from hickeys. They control water better than any other lithographic roller.



2

The people to whom this man sells his lithographic work do not require fine color work. What they want is excellent, heavy color work, fast. He produces it for them hour after hour. He uses IDEAL GRAYTONE rollers in all positions except the last 2 forms over the plate. There, he uses IDEAL MASTERLITH rollers to keep the plate clean and avoid halos and hickeys. With this combination of rollers on his press, he gets speed and color at the cost of only a little extra care in handling the MASTERLITH rollers during installation and during shut-downs for lunch.



3

Here's a man whose customers want excellent quality but at the highest speeds presses will travel, to keep their cost within a budget. His presses are equipped throughout with IDEAL GRAYTONE rollers because they are especially made for heavy production runs in those pressrooms where all the men may not be skilled lithographers or where the maintenance work is done by itinerant labor. IDEAL GRAYTONE rollers are tough and are made to handle quick-set inks so necessary in high speed runs. The gray color of IDEAL GRAYTONE rollers enables this man to see at a glance whether his rollers are being kept clean so that colors will reproduce sparkling and clear.



One or the other of these plans fits your pressroom. By following these recommendations you can get the most out of your equipment, keep your costs low and deliver the kind of work your customers pay for. Remember that rollers are the heart of your press and without good rollers, ink doesn't flow.

4
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Now — DIS-COVER is PRE-WETTED before application to the wet dampening rollers. No tubes or special equipment is needed. Simply dip your improved DIS-COVER in clean water, it becomes very soft and stretchy, and gather it in your hands and pull it over your roller. It takes but a minute and hugs tightly. Improved chemical treatment makes the DIS-COVER more effective than ever in keeping water demand very low. Improved chemicals increase the attraction of scum and tint from your plates, yet, the DIS-COVER remains cleaner than our previous fabric.

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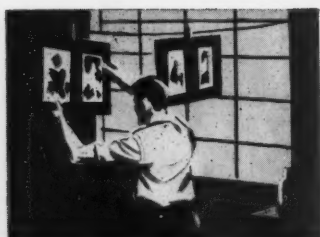
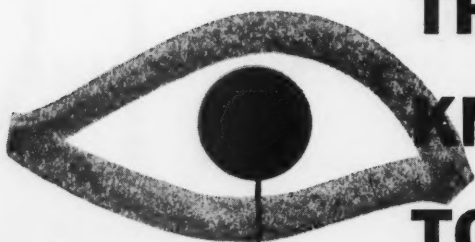
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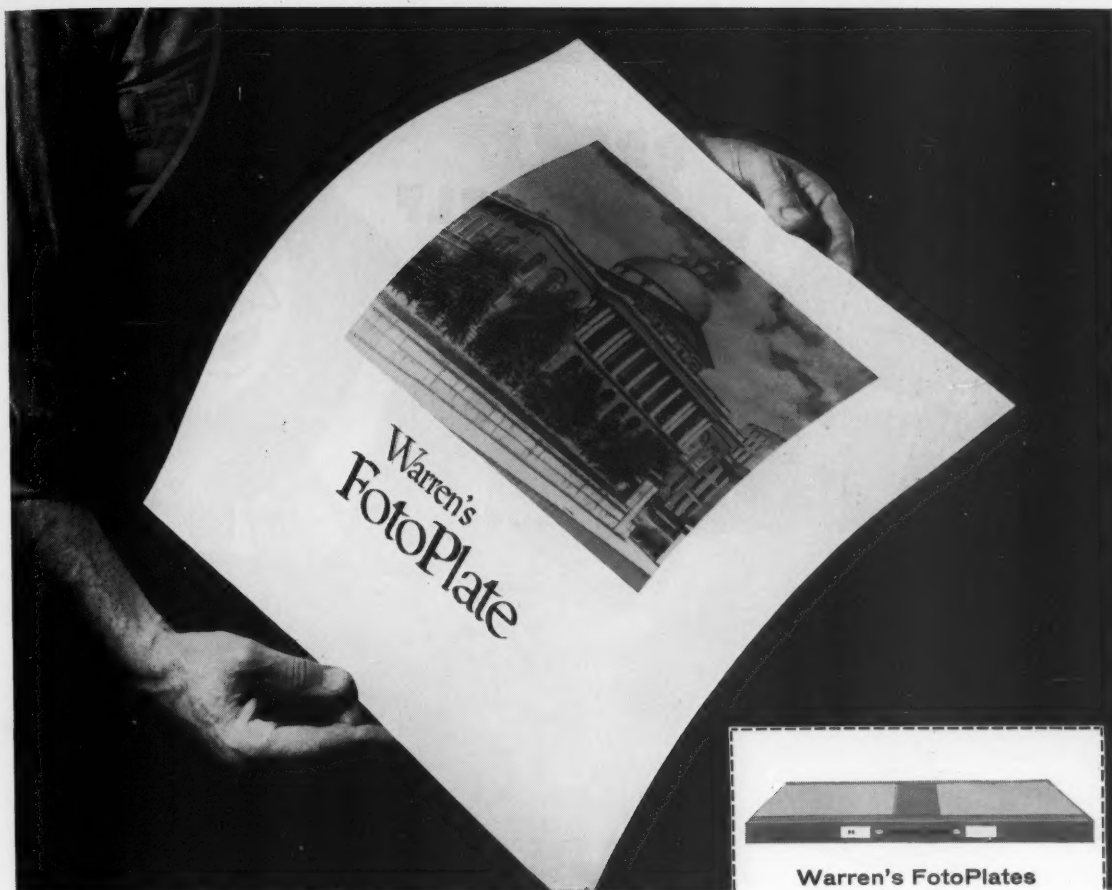
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24¾ x 30	32 x 41

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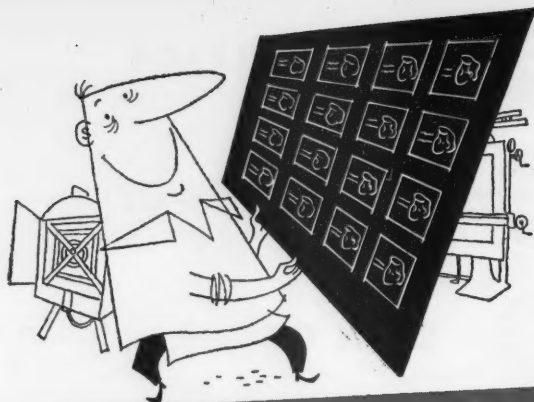
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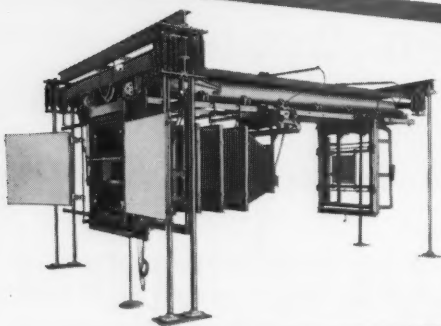
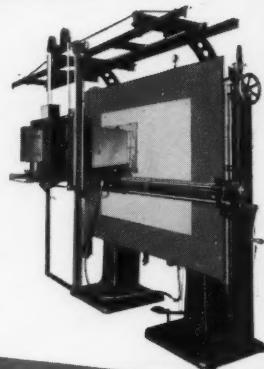
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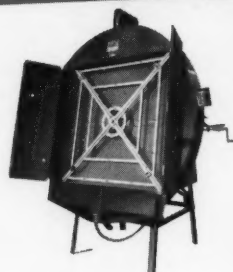


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Editorials

A Pointless 'Prohibition'

ONCE again the Congress is faced with ill-conceived legislation, this time having far-reaching significance for lithographers.

Concurrently before House and Senate are the Siler Bill (H.R. 4627) and the Langer Bill (S. 923). The bills are identical and have been introduced to prohibit the transportation in interstate commerce of all forms of alcoholic beverage advertising.

This seems to be another example of that school of legislation which holds that the way to control a situation is not to go directly to the source but to bind and hamper it with annoying legislation that will work a hardship without really coming to the point of the matter.

In this case, alcoholic beverage advertising is the issue. Now, it would seem to the average observer of the Washington scene that if there were anything unethical, untrue or misleading about liquor advertising that couldn't be controlled by public opinion and Better Business Bureaus, then the Federal Trade Commission and the Alcohol and Tobacco Tax Division of the Treasury Department ought to step in and set things straight. If there really are some offenders, they should be made to remove the offending portions of their advertisements to bring them into conformity with existing standards. That certainly has been the workable plan followed in countless previous cases in other fields.

The damage of such legislation was quickly foreseen last month by the Point-of-Purchase Advertising Institutes, Inc. and The American Association of Advertising Agencies. Speaking for POPAI, Norton B. Jackson, its executive di-

rector, told House and Senate Committees on Interstate and Foreign Commerce that about one-quarter of the \$830,000,000 point-of-purchase industry is concerned with the alcoholic beverage industry, of which 90 percent is done in interstate commerce.

He said passage of the bill would damage the field he represents as well as the industries with which it is allied—with lithography heading a list that includes paper, ink, plastic, wire, illuminated and non-illuminated displays, transportation and many others.

Mr. Jackson went on to point out that severe damage would be done to the brewing industry that spends "as high as 40 percent of advertising budgets on point-of-purchase advertising."

Lithographers are doing a wide variety of advertising work, including posters, brochures, pamphlets and display pieces of all sorts. They can easily reckon the dent that such legislation would make in their yearly business if it is enacted by Congress.

THE litho industry would certainly agree that if there is something wrong with liquor advertising it should be corrected. But we are sure they will just as strongly support the contention that if it is lawful to make a product in the United States it is lawful to advertise it.

The prudes and the bluenoses ought to know better. Such sweeping legislation is ill-advised and pointless. Its sponsors could try, with as little prospect of success, to halt drinking by removing the brass foot rails from bars—it would make things uncomfortable for bar patrons, but it wouldn't be getting to the source.

Light and the Camera

By John M. Lupo Jr.

Di-Noc Chemical Arts, Inc., New York

THE most difficult part in writing about light is the choice of a suitable definition. To give a very general explanation however, we may say that light is a form of energy affecting the eye to produce vision.

There are many problems in science which cannot definitely be answered. Scientists, when trying to seek the truth behind such problems, assemble certain information or facts from which they conclude an acceptable statement or theory.

With the available information of the phenomenon of light two great scientists, Newton and Huygen, proposed their theories on light. Newton, in the 17th century, stated that light is composed of a stream of corpuscles or "light bullets" sent out by a shining object. This is called the corpuscular theory of light. Huygen in 1678 stated that light is composed of a series of waves. The latter is known as the wave theory and is the most widely accepted theory on the composition of light.

In the practical sense we are only interested in the wave theory because it is the basis of the technical approach to the explanation of color. A more detailed explanation of this will be given later in this article.

It takes approximately one second to say "Quick as a flash," and in that short space of time a ray of light can travel seven times around the world. The speed of light in air is 186,300 miles a second. If a human could travel at this speed we could commute

This is the first article in a new series on photography. In future articles, Mr. Lupo, who is a technical sales representative for Di-Noc Chemical Arts, Inc., will discuss, in practical terms, selection of f openings, developing and the actions of the developer, density and curves.

The author will explain the material so that the beginning cameraman in the litho shop will understand it. Veteran photographers also will find it useful as a thorough refresher in the fundamentals of the process.

to the sun, 93 million miles away, in just nine minutes. This speed is so great that to the ordinary human perception, light is instantaneous.

Let us now briefly summarize the nature of light as a form of energy or power, producing vision, sent out in waves and at a speed which we may generally say is instantaneous.

Measurement of Light

This page is 12 inches long and weighs about one eighth of an ounce. These figures are actually measurements of weight and distance. When we scale photographic copy we take the dimension of length and the dimension of width and say that we have measured the copy. Light, too, has two dimensions, but its measurements are not length and width.

Light is measured by the amount emitted or sent out and the amount

received or illuminated. Let us take the electric light bulb furnishing the light by which you read. The amount of light sent out by the bulb is one measurement and the amount of light falling on the paper is another measurement.

Fig. 1 illustrates the light of a candle falling on a piece of cardboard one foot square. This amount of light is called a lumen and is the measurement of the quantity of light emitted.

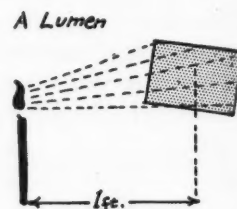


Figure 1 A Lumen

A foot candle is a measure of the amount of light received (illumination). It is simply the number of lumens per square foot. If we were to light that square foot of cardboard by 10 candles we would then say its illumination is 10 foot-candles or 10 lumens per square foot.

One of the simplest devices for measuring light is the photo-electric type of exposure meter used in amateur photography. It measures illumination of the subject (in foot candles) and has dials calibrated with film speeds to give the f opening and shutter speed to be used for exposure.

In the graphic arts, the light inte-

grator is the common device for measurement of light. These instruments are more commercially known as the Essar, The Totalume and the Luxometer. We may generally consider them as a graphic arts type of photoelectric meter. They measure both the time of the exposure and the amount of illumination on the copy. If the arcs flicker or give less brighter light because of current fluctuations, the integrators will automatically compensate for this by increasing the time of exposure.

Let us then say that an integrator measures the amount of light for which it is set and compensates for the variables, such as current fluctuation angle of arcs, distance of arcs and distances of copyboard from the lens. They enable us to get consistent exposures.

Reflection

If you were to throw a ball at an angle against a wall it would strike the wall and bounce off in a different direction. This is illustrated in Fig. 2. Using the same example, let us substitute a ray of light for the path of the ball and a mirror for the wall. Fig. 3 illustrates two angles, i and r . The angle at which light strikes the

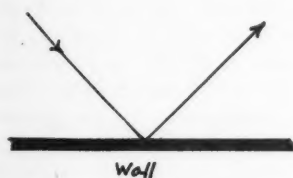


Fig. 2

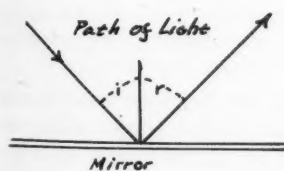


Fig. 3

surface of the mirror is called the angle of incidence and the angle at which it is reflected is called the angle of reflection. The angle of reflection always is equal to the angle of incidence.

It is this angle of reflection that guides us in the setting of angle of our arcs on the camera. The angle normally used for arc lighting is 45 degrees, (Fig. 4) because this setting

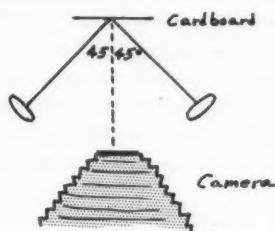


Fig. 4

gives us the most efficient illumination and the reflection is such that it prevents "hot spots" or uneven illumination of the copy. If we have this arc angle too low (Fig. 5) we get



Fig. 5

a glare of light entering the lens. This causes an overexposure in certain areas on the negative resulting in filled in lines or tones. If this arc angle is too great (Fig. 6) we do not get suffi-

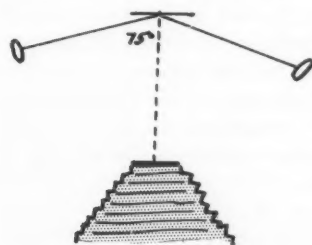


Fig. 6

cient reflection and consequently not enough illumination of the copy.

Reflection also is important in the study of optics and many other such related subjects. Additional information will be given on this topic in future articles.

We have stated that light in air

travels at a speed of 186,300 miles a second. The speed of light in other media is different. For example, in glass the speed of light is about half its speed in air. When a ray of light travels from one medium to another the ray is refracted or bent. Fig. 7 shows the refraction of light from air to water.

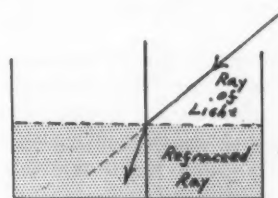


Fig. 7

Refraction

Refraction occurs only when a ray of light enters or strikes the second medium at an angle. Let us illustrate this for a more complete understanding. Fig. 8 shows a pencil directly

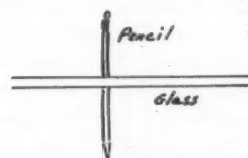


Fig. 8

behind a piece of glass. We view this normally and see no signs of refraction. In Fig. 9, let us view the same pencil and glass at an angle. Refrac-

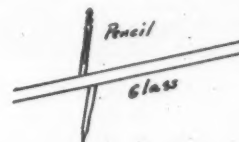


Fig. 9

tion gives the illusion of the pencil appearing to the right of where it should be. The reason for this is that the rays are not traveling through the glass at the same speed at which they were traveling in air, and consequently we get refraction or bending of the rays.

In the darkroom we are constantly fighting the effects of refraction which causes the "sharpening up" of images when contacting through the

thickness of the film base. Fig. 10 shows a ray of light exposing a piece



Fig. 10

of film which has an emulsion to emulsion contact. Here we see there is no refraction and the line thickness on the exposed film is identical to the negative. In Fig. 11, we are

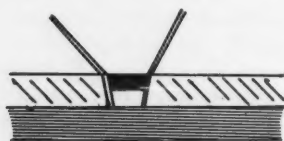


Fig. 11

shooting through the thickness of the base, and it is here that we get refraction or, as we commonly call it, "light undercut." To remedy this situation to some extent we use thin base film when it is necessary to make contacts through the thickness of the base. This of course does not prevent refraction but since the base is thinner, the refraction is limited. Fig. 12

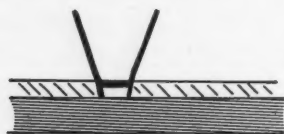


Fig. 12

shows refraction on thin base film.

Wave Motion

You have probably heard of or read of different types of waves affecting our daily living. We are all familiar with the radio waves, sound waves, X-rays and we have heard about the eerie cosmic rays. We have mentioned that light waves and wavelength are important considerations in the study of light and color. Let us now consider them in detail.

If you were to drop a pebble into a quiet pool, a series of motions called

ripples, or waves, would be formed. The water moves, of course, but the motion is up and down, not lateral. This is best observed by the action of these waves on a cork. The cork bobs up and down with the waves but does not move across the pool.

It is the action of these ripples which we call waves. It is this wave motion which transmits light and is the basis of the wave theory of light. Fig. 13 illustrates an exaggerated light wave.

The term wave length can be defined exactly as it is written, the

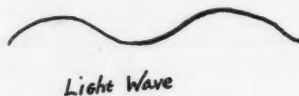


Fig. 13

length or distance of a wave. It is the distance from a point on a wave to the same point on the next wave. Fig. 14 shows a wavelength. The wave-

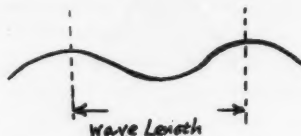


Fig. 14

length of visible light is so small that it is measured in extremely small fractions of an inch. Each of these fractions is equal to one two-and-a-half-billionth of an inch. The technical name is a millimicron.

Now that we have explained waves and wavelength, let us look at its practical application, the defining of color.

The Spectrum

What is light? What is color? Are the two related? Those were questions the great scientist, Sir Isaac Newton, no doubt was thinking of in the early 17th century. He was extremely interested in light and had conducted extensive experiments with it. In one of these experiments, he had the rays of sunlight from his laboratory window focus on a prism. In

back of the prism he had a small screen so the projected rays could be readily visible. The light, after passing through the prism, was broken up into a number of colors as illustrated in Fig. 15. This band of colors emit-



Fig. 15

ted by the prism is called a spectrum. Newton referred to this experiment as the "Experiment of Colors." Let us plot this spectrum on a scale and number it with the millimicron readings of wavelengths. Fig. 16 illus-

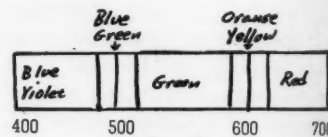


Fig. 16

trates a simple scaled spectrum similar to Newton's.

By having this wavelength scale on the spectrum, we can then identify color by a wavelength reading. For example, we say that the perfect color of blue is 450 mu (the abbreviation for a millimicron), the perfect green is 550 mu and red, 650 mu. This is an actual measure of wavelength which can be verified by a scientific instrument called a spectrophotometer. Printing inks, dyes, photographic filters, pigments etc. all are checked for exact color by a spectrophotometer, to insure color accuracy.

We have constantly referred to the visible spectrum in this article. We mean by this phrase that small portion of the complete spectrum which we can see. You have all heard of infra-red rays, X-rays, etc. You cannot see them but you are aware of their effects. These rays form a part of the remaining spectrum, the invisible portion.

Remember, in summary, that the

visible spectrum is a band of colors making up white light. The use of the wavelengths on a spectrum scale enables us to measure color.

Color Sensitivity

One of the most important practical applications of the scaled spectrum is the plotting of the color sensitivity of photographic film. Wedge spectrograms are a common feature of all photo technical books and manuals. They tell if the film is ortho, pan, or color blind, and the degree of sensitivity of each of these.

Fig. 17 shows the sensitivity of the

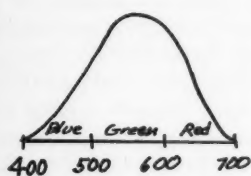


Fig. 17

eye. Notice that its peak of color is in the green. This differs considerably with the sensitivity of photo film which has its high sensitivity in blue and ultra violet. Fig. 18 is an illustra-

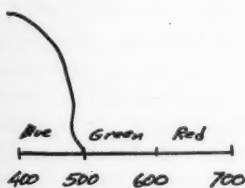


Fig. 18

tion of non color sensitized film often referred to as color blind. This means that its sensitivity is in the blue and ultra violet only. Ortho film also is sensitive to green, as shown in Fig. 19.

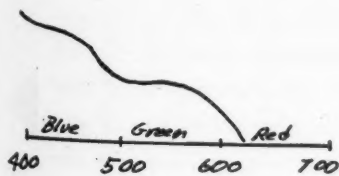


Fig. 19

It has no sensitivity to red and consequently we can use red as a safelight. Pan emulsions are sensitive to all colors as shown in Fig. 20.

It is extremely important for a

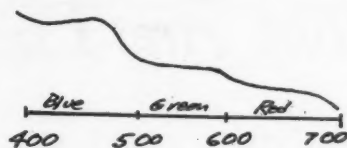


Fig. 20

photographer to be able to see as the film does. As we have seen, the sensitivity of the eye is quite different from film and we have to interpret how film will be affected by the color we see, taking into account the color sensitivity difference. Wedge spectrograms give us this information, and consequently should always be used as a reference source for the photographer.

Conclusion

1. Light is a form of energy or power, producing vision. It is sent out in waves and at a speed which we may generally say is instantaneous.

2. Light is measured by the amount sent out, and by the amount illuminated. The photoelectric cell and the light integrator are devices used for measuring light.

3. Reflection is the key for the setting of our arc angle for photo lighting. It is done in such a way as to prevent glare to the lens.

4. Refraction is the bending of light when it enters another medium. Film in emulsion to emulsion contact does not refract light, but when it is out of contact it is best to use thin film for minimizing this refraction.

5. Light wave motion is the up and down action of ripples or water waves. The wavelength is the measure of the distance from a point on one wave to the corresponding point on the next.

6. A spectrum is a band of colors emitted by a prism. By the use of a wavelength scale on a spectrum we can actually measure color.

7. The color sensitivity of the eye has its peak in green and differs considerably with photo emulsions high in the ultra-violet and blue regions of the spectrum.★

Who Makes Presensitized Plates and What Are They Like?

Part Two of a Special Series

THERE are many kinds of presensitized plates, in many sizes and many materials and for various purposes. Some are intended primarily for the duplicator field; others are marketed for use on large, long-run offset presses. The plates have been around for a few years now, and lithographers, according to ML's poll last month, seem to like them.

One thing is sure: presensitized plates are here to stay. They have found a place in plants with platemaking departments, and they have been especially helpful to shops without plate departments.

What is the situation now with the plates? In order to find the answer, ML offered an open forum to the companies making the plates. We have limited this discussion to those plates which are available in size 14 x 20" and larger. The reports of technical men in each of five companies are included in this article.

Also included is a chart summarizing the characteristics of each of the plates. The chart is arranged so that you can note at a glance all the distinguishing features of one plate, or take one characteristic and compare all the plates.

Basic Similarities

Presensitized plates have some basic similarities. The base material is either aluminum or paper. The surface coating on the aluminum plate is of the diazo type. (Most manufacturers of the paper plates did not specifically state the nature of the coatings on their plates.)

The most important characteristic of all the plates is that they come to the litho shop ready for exposure and with a shelf-life of at least six months. In all cases, they can be made ready for the press in five or ten minutes and will produce jobs of equal or superior quality to conventional albumin coated zinc plates. That is the claim of the manufacturers. It is also the opinion of representative litho shops in all parts of the country, ML learned in its poll.

Preparation of the plates varies, but in most cases, the procedure is something like this: (1.) The plate is exposed in a standard exposure frame, the time depending on the lamps used and the nature of the work. (2.) The plate is developed with a gum or acid solution, using cotton or a cellulose sponge, and wiped off. (3.) Lacquer or developing ink and then gum are applied in some cases, although

these steps are consolidated with No. 2 for several of the plates. (4.) The plate is locked on the press in the normal way, press settings varying with the thickness of the plate.

Aside from these basic similarities, presensitized plates are different in several important ways, as any lithographer who has investigated them knows. For one thing, some are positive and some are negative working. (Azoplate makes both a positive and a negative working plate). Thickness varies from plate to plate, as does the method of developing them. Most are grainless but three have a fine grain. Only Harris-Seybold makes a two-sided plate, the others being usable on one side only.

Deletions, Additions

It is possible to make deletions on all the plates considered in this review, and lithographers can *add* material on all but two. All but one of the plates (made of paper) can be stored for reruns.

As for press settings, suppliers are in agreement that they should be the minimum that will produce good printing. Likewise, ink and water should be held to a minimum. Any conventional ink will work, according to the makers, with the more fluid, non-abrasive types preferred.

On the important question of number of impressions possible with the presensitized plates, the estimates and claims vary. The paper plates, understandably, are limited to runs around 5,000. The aluminum plates are good for considerably longer runs, up to 50,000 impressions and beyond in many cases. Manufacturers are reticent about making strong claims in this department. Most guarantee a modest run but report much longer runs in actual use in litho shops. LTF has experienced runs from 35 to 50 thousand.

It is not the purpose of this article to make recom-

Table on opposite page shows presensitized plates, manufactured in size 14 x 20" or larger. It is arranged so that you can see all the characteristics of any plate by reading across, or compare the plates on characteristics, reading down.

Manufacturer	Base Material	Size Range	Surface	Thickness of Plate	Grained or Grainless	Lacquer or Intensifier	Positive or Negative	Shelf Life	Deletions Possible	Additions Possible	Reruns	Press Setting	Length Run	Ink Needed	One or Two-Sided
Azoplate	Aluminum; also make an acetate-paper lamination	10" x 15 1/4" to 26 3/4" x 36"	Diazo	.0075"	Fine Grain	Yes	Positive and Negative	Six Months from Shipment	Yes	Yes	Yes	Minimum consistent with Good Printing	Lithogs. report up to 50,000; Mfr. Tests for 10,000 Critical Copies	Normal	One
Harris-Seybold (including Alum-O-Lith)	Aluminum	8 7/8" x 14 1/2" to 40 1/2" x 50"	Diazo	.005" to .012"	Grainless	Not Needed	Negative	Six Months	Yes	Yes	Yes	Minimum Pressure	10,000—75,000	Normal	Two
Minnesota Mining	Aluminum	14" x 20" to 25 1/2" x 36"	Diazo	.005" to .006"	Grainless	Yes	Negative	Six Months	Yes	Yes (minor)	Yes	.002" to .003"	Too many Variables to State Exactly	Normal (non-abrasive)	One
Ozalid	Paper	8 1/2" x 12" to 20 1/2" x 20 1/2"	Diazo	.0055"	Grainless	No	Positive	Six Months	Yes	No	No	Normal for Offset Duplication	1,000	Any Good Offset Dup. Ink	One
	Aluminum	10" x 15" to 25 1/2" x 36"	Diazo	.006" (small) .010" to .012" (large)	Fine	Not Used	Positive	Six Months	Yes	Not Practical	Yes	Normal for Type of Press	10,000	Normal	One
Remington-Rand	Wood Pulp	14" x 20" to 23" x 19 3/4"	Inert Material on Plastic	.007" to .010"	Grainless	Not Needed	Negative	Six Months	Yes	No	Yes	Minimum Settings	Vary with Job	Normal	One
S. D. Warren	Paper	10" x 16" to 32 1/2" x 43"	Pigmented Hydrophilic Plastic (similar to litho stone)	.012"	Very Fine Grain	Not Needed	Negative	One Year from Date of Mfr.	Yes	Yes	Yes	.0145"	5,000	Normal (more fluid)	One

recommendations on the various plates. That is something for the individual lithographer to study and decide upon for himself. Nor is it possible, in an article of this length, to go into the various coatings available to lithographers for use with plates, both presensitized and conventional. Rather, it is hoped that the reports from technical men at the companies, and the accompanying chart, will help steer the interested lithographer toward a decision as to what plate will fit in with his particular type of work. For further information on any plate, it is suggested that readers contact the manufacturer at the address listed, for further data and a test batch of plates.

Azoplate Corp.
Morris Ave & Weaver St.,
Summit, N. J.
F. W. Von Meister

The sole business of Azoplate is the manufacture of Enco Presensitized Plates, and it was their chemists who brought the first presensitized plate to America. It is the only organization that markets a complete line of presensitized plates — a plate to meet every need. The products manufactured are a negative working aluminum plate, a positive working aluminum plate, and an acetate, paper-laminated negative working plate.

The negative and positive working aluminum plates were created with the critical lithographer in mind. Grained surface plates are preferred by lithographers, and Enco offers the finest grain the industry has seen. The quality of reproduction is unsurpassed and the printing surface is highly scratch resistant. The plates are based on relatively heavy gauge aluminum. Both negative and positive working plates are simple to make and both carry a guaranteed shelf life of six months from date of shipment.

The Enco Positive Working Plate was the first of its kind on the market. It is an economical and super-high quality alternate to the deep-etch plate.

The aluminum plates are .0075" in thickness, with a very fine grain.

The acetate, paper-laminated plates are negative working and most economical. They are the fastest of all to handle - shortest exposure - and minimum processing.

All Enco presensitized plates are available in a wide variety of sizes. The plates are all easy to handle and process.

On the press, Enco aluminum plates are preferred because of their fine grained surface.

Harris-Seybold Co.,
4510 E. 71st. St.,
Cleveland 5, O.,
W. P. Bourquin

Harris-Seybold Company manufactures a complete line of pre-sensitized photo-offset plates, marketed under the Harris "Sensi-Plate" and the Lithoplate "Alum-O-Lith" brand names. (Lithoplate, Inc. of Los Angeles recently was acquired by Harris-Seybold and is now a wholly-

owned subsidiary.) Plate sizes range from those for small office duplicators to large professional presses — 8-7/8 x 14 1/2" up to and including 40 1/2 x 50".

A companion line of pre-sensitized plate processing chemicals is offered under the same brand names. These include Harris "Sensi-Plate" and Lithoplate "Alum-O-Lith" desensitizer, developing lacquer and plate cleaner, as well as the combination processing solutions, Harris "3-in-1" and Alum-O-Lith "D.L.G."

Harris "Sensi-Plate" and "Alum-O-Lith" pre-sensitized plates are made of heavy-gauge sheet aluminum for greater tensile strength. They will not stretch, kink or tear with normal use. They can be mounted or removed from the press with little more care than is required for regular grained zinc or aluminum plates. Harris plates (meaning both the "Sensi-Plate" and the "Alum-O-Lith") combine the convenience of "ready coats" with the heavier gauge of conventional plates.

Both sides of these pre-sensitized plates are chemically grained and coated with a light sensitive diazo-type compound. This provides two printing surfaces, cutting the lithographer's plate material costs in half. The coating is securely bonded to the metal and will not crack or break away.

Both plates are negative-working, that is, they are exposed from negative flats like conventional zinc or aluminum surface or albumin plates. Their relatively grainless surface prints clean, holding shadow areas open and retaining high-light dots.

Harris "Sensi-Plates" and "Alum-O-Lith" pre-sensitized plates have a warranty of six months' shelf life. They are relatively unaffected by temperature and humidity. They can be stored for re-runs simply by gumming the plate with Harris Lovisgum, removing ink and covering with Harris Litho Asphaltum. Runs from 10,000 to 75,000 impressions are possible.

Harris-Seybold also markets a "Redi-Cote" plate, which has an unlimited shelf life, for both commercial and military overseas use. The "Redi-Cote" plate is a partially pre-sensitized plate which requires only a simple final coating to make it a full pre-sensitized plate.

The "Alum-O-Lith" plate made by Lithoplate was one of the first pre-sensitized plates on the market, and the company has regularly introduced many improvements in the field. For instance, Lithoplate was the first maker to offer the economies of a two-sided pre-sensitized plate. Also, it was the first to use heavy-gauge sheet aluminum for larger sized plates. Harris-Seybold and Lithoplate have the largest range of sizes in the industry, up to 40 1/2 x 50".

Minnesota Mining & Mfg. Co.,
900 Farquhar Ave.,
St. Paul 6, Minn.
D. J. Blomberg

The 3M Plate is an all aluminum, diazo coated, pre-sensitized plate, .006" in thickness. It is presently being furnished in the sizes 14 x 20" to 25 1/2 x 36". We are also manufacturing, upon special order, 3M Plates in sizes

up to 36" wide and in any length. Shelf life of our plate, which is dated on each package, is six months.

The technical facilities and our Printing Products laboratory are constantly at work to improve our product and the processing chemicals that go with it. The Lithographic Technical Foundation has stated there are more than 50 variables in making a conventional surface-coated plate. By roll coating by machine in a plant perfectly controlled for dust, temperature and humidity, and by an elaborate and costly quality control of basic materials, workmanship, and finished products, we have eliminated the variables inherent in conventional platemaking.

The 3-M plate is .005 to .006" in thickness, with a grainless surface. It is exposed in a standard frame, then covered with 3M Process Gum wiped evenly over the surface with a cellulose sponge. Before the gum is dry, 3M Image Developer is applied generously and rubbed over the surface with another sponge until a strong red uniform image appears or until the developer begins to adhere to the non-image area. If the image is still weak, more Process Gum is added. Next, the excess gum and developer is washed off and the plate is gummed with the Process Gum and polished with a clean, soft, cheese cloth.

Minnesota Mining recommends plate and blanket cylinders be packed to a pressure of .002 to .003", for the larger plates. Dampeners should be set so that they are driven by the oscillating roller.

Ozalith

Johnson City, N. Y.

L. C. Freshley

Ozalid makes two plates; of paper and aluminum. The paper plate consists of a high strength, moisture-resistant paper base about .0055" thickness which bears a lacquer carrier layer and a diazo sensitizing layer. This plate has extremely high sensitometric contrast characteristics. It is used largely in the duplicator field.

The aluminum plate consists of a diazo compound coated onto mechanically grained and chemically treated aluminum. Aluminum plates are available in .006" thickness in small sizes and in .010" and .012" in larger sizes in accordance with press manufacturers' specifications. This plate has somewhat lower contrast characteristics than the paper plate.

Both paper and aluminum plates are guaranteed for a period of six months from the date of manufacture, however the aluminum plates appear to have a shelf life well in excess of one year.

Because Ozalith plates are positive-working and, therefore, can be exposed from a variety of types of paper, cloth, and film originals, the exposure time will vary considerably with the degree of translucency of the original and with the type of light source used for exposure.

The Ozalith aluminum plate has a fine grain with running characteristics similar to negative grained aluminum plates. They are made in thicknesses corresponding to press manufacturers' specifications and are therefore easier to mount on the press; creeping and wrinkling difficulties encountered with thinner gauge plates do not occur.

A minimum of fountain solution is required; best results are obtained using one ounce of gum and one ounce of etch to a gallon of water. Any good ink can be used. The plate has excellent stability before and after processing and is virtually unaffected by temperature and humidity. Properly preserved plates can be readily re-run. Images can be deleted by applying Ozalith Aluminum Image Remover.

Ozalith aluminum plates are durable, dimensionally stable, simple to process and easy to run. Ink-and-water balance maintenance is much less critical to maintain with them than with conventional negative aluminum plates. They ink up quite rapidly on the press and are highly scum-resistant. Depending on the translucency of the original and the light source used for exposure, an Ozalith aluminum plate can be exposed, processed, and ready for running in as little as two minutes.

There are innumerable uses for Ozalith plates. Anything drawn, written, typed, or photographed on translucent material (paper, cloth, or film) can be reproduced on an Ozalith plate.

Remington Rand

**315 Fourth Ave.,
New York 10, N. Y.**

Dean A. Kearsh

Pre-sensitized Photospeed Plastiplates are bonded plastic plates on a wood pulp waterproof base. Plastiplates are available for Addressograph, Multilith, Davidson, Harris and Miehle presses in sizes 14" x 20" and larger. The surface is inert material, and Plastiplates have long shelf life. Corrections are made with an ordinary rubber eraser. The plates are approximately .0075 thick; some .010.

The secret of Plastiplates' performance lies in the patented plastic "no-grain" surface. The plastic completely permeates the wood-pulp base. The result is that the image actually "bites into" the surface, giving stronger solids, softer tints, sharper detail work. In addition, the problems of fingermarking and scratching are virtually eliminated in Plastiplates. Finally, Plastiplates' "self-cleaning" feature means that they clean themselves of excess ink right on the press.

The benefits of Plastiplates may be summed up as follows: sharp copies; fast, safe corrections, longer runs, fingerprint and scratch resistance, and dimensional stability for better registration.

S. D. Warren Co.

**89 Broad St.,
Boston 1, Mass.
Chester Gramstorff**

FotoPlates are constructed of two .006" sheets of paper laminated for dimensional stability. The printing surface is a plastic material, the nature of which is very similar to the old lithographic stone. It has a very fine grain which is capable of reproducing screens as high as 300 line. This plastic material is also hydrophilic, which helps the press-

(Continued on Page 135)



ML Plant Tour

Number 4



James D. Van Gorder, president, in his strikingly refinished office.

Mahony & Roese

*An interesting combination of new and old equipment
and methods produces music by lithography*

MAHONY & Roese, Inc., is a study in contrast. Not only physical contrast, but contrast in product and method, business principles and philosophies. You notice the first contrast as soon as you are transported from New York's faded Cooper Square to the brightly remodeled offices of the lithographic firm.

The handsome waiting room and the attractive modern offices of the firm are in sharp contrast to anything else in the building and to the neighborhood generally, which, despite the presence of venerable old Cooper Union for the Advancement of Science and Art, nevertheless is on speaking terms with the Bowery.

The office of the president, young and enthusiastic James D. Van Gorder, has the touch of a professional designer, although it was conceived by the un-professional Mr. Van Gorder. Three walls are conventional, lined with books and pictures, but the fourth, behind his desk, is faced with red brick, relieved only by an ornamental brass tray.

Other Contrasts

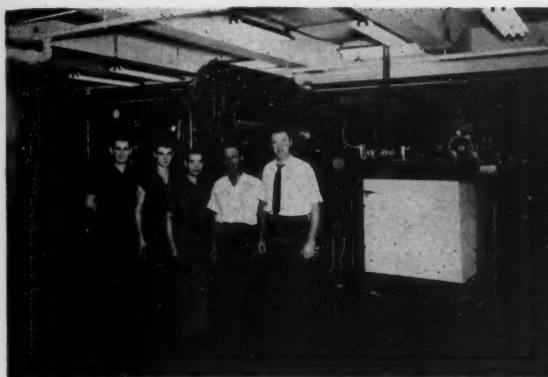
There are other contrasts: the old Potter presses, reliably turning out music sheets hour after hour, just as they have done for 10, these many years and the bright new ATF Mann presses, one a 38 x 53" perfector, the

other a 42 x 65" single color; the longhair fugues and chamber music pieces, oratorios and choir books and the first issue of a sprightly new magazine listing phonograph record releases for dealers; and finally, the dynamic views of Mr. Van Gorder, contrasted with the easy-going, relaxed attitude of the management of former years.

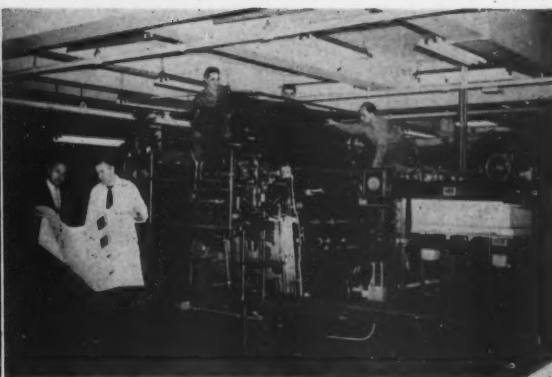
Mr. Van Gorder has transformed the company almost beyond recognition in the years since he left the service in 1946 and became president in 1953. He has replaced most of the old equipment and he has extensive plans for the future.

But first, a little background on the company and the unique lithographed work it is handling. One of the select group of music lithographers in the United States (there are only nine), Mahony & Roese was started in 1913 as Mahony & Scheid, by Mr. Van Gorder's uncle, Michael Mahony. It grew and prospered by lithographing music exclusively, using stone presses until 1935. At that time the company converted from stones to zinc plates, but continued to use hand transfer methods until 1937, when the final conversion to photo-offset was made. The Potter presses added after 1935 are two 41 x 54" presses and one 35 x 45". They are at least 35 years old, Mr. Van Gorder estimates. One was purchased from Joseph Hoover & Sons Co., Philadelphia, in 1950 and completely rebuilt before installation.

After Mr. Scheid's death, Henry Roese joined Mr. Mahony in the partnership in 1931. He died six years later. Mr. Mahony, himself died in 1952 and a few months later Mr. Van Gorder, who had been working in the office, took over as head of the firm. Richard Roese, son of Henry, is plant superintendent. The company continued to print music, even during the war, when music was looked upon by the government as a great morale booster,



Officers and pressmen lineup in front of new ATF 42 x 65" single color press at the Mahony & Roese shop. From left, Pete Carozza, John Reid, Fred Cerniglia, Richard Roese, plant



superintendent; and James D. Van Gorder, company president. In photo at right, Mr. Van Gorder checks over a press sheet with ATF salesman John H. Johnson.

and branched out to handle general commercial work in 1947.

Today music printing is down to about 40 percent of the total volume, although the dollar volume is higher than the days when it was the sole activity of the company.

Music printing is a fascinating craft. It used to depend on music engravers for its success, but Mr. Van Gorder told *Modern Lithography*, the technique is fast dying out. It flourished in the 18th century but today there are only 30 or 40 men in the United States capable of doing this intricate and demanding work.

Engraving Music

The music engraver works at a simple bench, manipulating a collection of quaint tools to transfer the composer's manuscript onto a sheet of soft metal (made of tin and lead). The engraver must understand music so

that he can plot it on the pages with allowances for rests at the end of each page. Once the work has been plotted, staff lines are ruled in. Then, using a steel stylus, and employing a kind of musical shorthand, the engraver marks a tiny circle here, a line there, as he indicates the position and type of notes to be stamped in. The stampings are made with pencil-shaped steel punches (see illustration) on which are carved various notes, symbols or letters. He sets the punch in place and gently taps it with a small mallet, putting in the clef, the notes, sharps and flats, and finally the lyrics.

Engraved plates are the "old" way of printing music. From them the lithographer takes a reproduction proof which goes to the camera as copy.

The more modern method of preparing music is to "autograph" it; that is, to copy the manuscript care-

fully onto paper with pen and ink. Engraving gives a finer job, but a skilled engraver can turn out only two or three pages a day, whereas an autographer can do four or five.

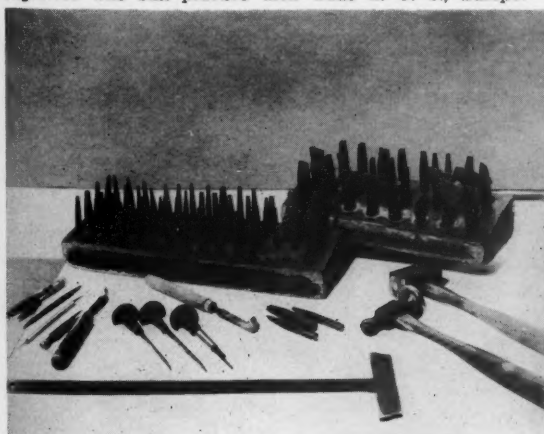
A big part of the music lithographed by Mahony & Roese is for Carl Fischer, Inc., one of the oldest and largest music publishers in the United States.

Typical Job

Here is how a typical job is handled in the Mahony & Roese plant: Fischer supplies the music in one of three ways—as engraved music plates, autographed copy, or repro proofs pulled from the engraved plates. If the music is coming from Europe, the third method is most popular, because it saves the high expense of shipping the heavy plates.

The order is entered in the office and sent to the proofing department.

Steel punches still used by fast-waning number of music engravers who still practice their trade in U. S., Europe.



At right a Mahony & Roese employe pulls a reproduction proof on the antique steel engraver's hand press at the shop.



There, an old steel engraver's hand press is used for the proofing. First though, a special hard ink is heated on a plate over a stove unit until it is slightly melted. It is rubbed liberally over the plate, which is on a cool surface, so that ink gets into all the tiny lines and notes. Excess ink is scraped off and the plate surface is cleaned with a cloth dampened with a lye and water solution. Then reproduction proofs are pulled until a desirable one is obtained for the camera. At this point, the conventional lithographic process takes over and the job is produced much like any other, with a few exceptions.

Short Runs

For one, the press runs are fairly limited, as low as 250 copies of a highly technical work. Maximum runs are about 50,000 for a beginner's music book. An average run, according to Mr. Van Gorder, is 1,000 to 2,000 impressions for music books and sheet music. No binding is done in the plant.

Another variation in the operation is the fact that the delivery ends of two of the Potter presses have been removed to provide easier access to the cylinders, for quick changes after the short runs.

Other new equipment, in addition to the ATF presses, includes a Zenith whirler with 100" diameter, a 52 x 76" Zenith vacuum frame and a 24" Robertson vacuum back darkroom camera. And, because his shop now

can handle press plates up to 76", a press of that size is being considered for the future.

As an aid in the production of the music jobs, Mr. Van Gorder's shop has found it advantageous to prepare acetate lineup sheets which are used over and over to speed the stripping for book work, where imposition and trim are repeated.

That is typical of the many improvements that have been made at Mahony & Roesse since 1938, when Mr. Van Gorder started working in the plant, inking the engraved plates for repro proofs. He has been pushing for changes ever since.

"I have always said that if any of the men in the company could suggest changes or new methods that would make the work more efficient, I would go along with them, even if it means laying out a good sum of money," Mr. Van Gorder declared. "I'm all for change, if there are good reasons for it."

Furthermore, he said, "when I find myself becoming smug and self-satisfied about the plant and its operations, I will turn over management to some younger, more restless men with ideas and the enthusiasm to carry them out."

No Salesmen

At present, his attention is focused on ways of selling more work to keep his new presses running on double shifts. Not that he is in dire need of it, though. Mahony & Roesse, with

personnel totaling 40, but without a single salesman, has prospered solely on personal recommendations of satisfied customers. Mr. Van Gorder is farsighted enough to see that in this age of high press speeds and increasing costs, he won't always be able to operate that way.

Unlike so many other lithographers, however, he won't be going out after color work. "I feel that there is a place for a lithographer who can turn out long-run black and white work, especially for text books, novels, and publications." Already the company is turning out such work for Consumers Union and Harcourt Brace & Co., and is lithographing patterns for the Easi-Bild Pattern Co.

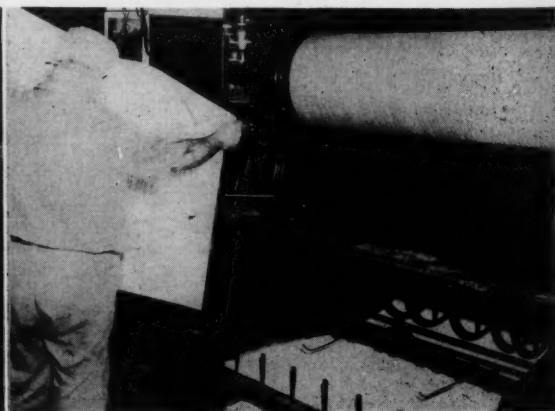
It is likely that music always will be the backbone of the company's work, however. That is a tradition that Mr. Van Gorder has preserved, even though he can't read a note of music. Such a drawback doesn't prevent him from serving as treasurer and a very active member of the National Music Printers & Allied Trades Association, however. Gilbert Clappin is executive secretary of the group, which has offices in New York, home of six of the nine music lithographers. Other officers are Henry Mlady, Raynor Dalheim Co., Chicago, president; and Jordan Zimmermann, Otto Zimmermann Co., Cincinnati, vice president.

Unfortunately, the pioneer music lithographer—old Senefelder himself—isn't around to see how business has flourished.★

Stripper uses an acetate lineup sheet to speed operation on a music book, for which imposition and trim are repeated.



Pressman checks a music sheet lithographed on Potter press that turns out short runs of music books at Mahony & Roesse.



Quiz Panel Planned by NALC

AN all-day quiz session on lithographic problems will be the main part of the convention program for the National Association of Litho Clubs April 20 and 21. The convention will be held in the Lord Baltimore Hotel, with the Baltimore Litho Club as host. Tom Bowden, Bowden Graphic Arts Supply Co., is chairman.

The quiz panel is set for Saturday. It will be interrupted by a luncheon at which the Hon. Raymond Blattenberger, Public Printer, will make the major address. Senefelder busts will be presented to past presidents of the association after Mr. Blattenberger's talk.

On the opening day, short speeches of welcome will be given by Baltimore and NALC officials. W. O. Morgan,



Hon. Raymond Blattenberger

of Chicago, is president of the association.

Nathaniel Gamse will moderate the

quiz panel, the convention chairman announced. Members of the panel will be reported in the April *Modern Lithography*.

It is expected that an increase in the per capita tax levied by NALC on litho club members will be considered in the general business sessions. There was sentiment for an increase at the recent Council of Administration meeting in Cincinnati, as reported last month (page 106). A seven-man committee is at work preparing a budget to be distributed to all clubs before the convention, so they can be prepared to vote on an increase to \$1 when they get to Baltimore.

Women's activities during the two days will include a bus trip to Annapolis, a visit to Laurel Race Course, and, of course, the annual banquet.★

Convention Program

Friday, April 20

8:30 a.m. Registration

9:00 N.A.L.C. Officers' Meeting

9:30 Assembly—*Thomas Bowden*
Singing of National Anthem
Invocation—*Dr. Paul Warner*
Words of Welcome—*Mayor D'Alesandro*
Greeting—*Lawrence Littman*, president of Baltimore Litho Club

10:00 Opening of Convention

Noon Luncheon—*Gov. Theodore McKeldin* of Maryland, guest speaker

2:30 p.m. Convention reconvenes
Election of Officers
Business Session

6:30-7:30 Cocktail Party, sponsored by Supply Salesmens Guild of Baltimore—Washington

Saturday, April 21

10:00 a.m. Quiz Panel—*Nathaniel Gamse*, Moderator

Noon Luncheon (Women Invited)
Hon. Raymond Blattenberger—Public Printer of the United States, guest speaker
Presentation of Senefelder Busts to past presidents of N.A.L.C.

2:30 p.m. Quiz Panel (continued)

7:00 Annual Banquet

WOMEN'S PROGRAM

Friday, April 20

10:00 a.m. Bus trip to Annapolis

11:00 Tour of United States Naval Academy

1:00 p.m. Luncheon at historic Carvel Hall

6:30-7:30 Cocktail Party

Saturday, April 21

Noon Visit to Laurel Race Course and lunch

7:00 p.m. Banquet

Registration: \$15—single, \$25—couple.

How to do Color Stripping

By Bernard R. Halpern

EVERY field of lithography can be considered a specialized branch for which particular techniques or requirements are necessary to meet the job specifications. Lithographic printing includes a variety of specialty paper fields, as well as the printing on tin, plastic, metal, glass, textiles, ceramics and building board. The process to be used for platemaking, the accuracy, and the reading direction required, normally will be specified on the copy or job ticket.

Based on these particulars, on the capacities of shop equipment and work schedules, the stripper must frequently decide on the most economical and expeditious method of flat preparation. This is particularly important where a fixed quotation for the end product is in effect. An increase in the accuracy of a job usually is associated with increased costs, but this can frequently be nullified by the stripper's ingenuity and resourcefulness. By properly selecting his materials and equipment, he can increase his efficiency and simplify his work. He can take advantage of short cuts that apply to "mass" production setups, such as the use of peg-boards; standard printed layouts for repeated use; and time-saving prepared stripping materials and solutions.

By careful and skilled workmanship he can reduce retouching and corrections to a minimum. He can also coordinate his work with the platemaker and pressman to simplify the register, printing and finishing operations for the specialty job during production. Suggestions for stripping procedure that are applicable to some

This is another chapter in the new Skilled Craft Text No. 512, "Offset Stripping — Color," which has been published by the Lithographic Technical Foundation, 131 E. 39th St., New York 16. The volume sells for \$5 a copy to non-members of the Foundation, \$1.50 for members. This material is published with permission of LTF. See the October and November, 1955 and February, 1956 issues of ML for other sections.

specialized lithographic fields follow:

Book and Periodical

Standard layouts can be printed on goldenrod paper to meet the fold and binding requirements of each signature, for each common publication size. This will save layout time for single color work. Pegboard assemblies for standard signature lays and sizes are more accurate and efficient. Where peg registration can also be applied to the vacuum frame, and on the press, they permit a maximum of efficiency and accuracy. Pegboard facilities also can be used for preparing a standard complementary mask to expose the marginal areas on a press plate after the positive assembly has been printed down, thereby reducing the retouching work.

Where text matter is supplied separately as positive film in galley lengths, the blue line flats for signatures can be prepared with blue lines to indicate justification margins and text areas. The addition of horizontal blue lines down each column, which

are spaced to correspond to the body size, can aid in mounting sections of the galley length of film and for inserting corrections. These guides are helpful even if the body size of the text on the processed film may vary somewhat from the spacing of the blue lines.

Where leading between lines of composition has not been provided, extreme care must be observed in cutting the galley lengths to page size. Where much of this work is to be done, a special trimmer should be made or procured on which the film can be pre-positioned to guide lines under a magnifier before the film is cut. Where leading has to be added to an existing film of composition, it is advisable to request that a new film be furnished with the correct leading.

Attempts to cut each line into a "slug" for proper spacing will cost more if the added positioning, mounting, and opaquing time is taken into consideration. Most corrections are more easily made by replacing a line or paragraph instead of a word or letter. Each correction should first be checked for agreement in body weight and line width or justification, before it is spliced or stripped into place.

Where corrections are made on stripfilm, the erroneous line can be removed with the image remover, so that the film base will remain intact. The corrected line can then be stripped into position over the cleared opening.

Label

Label stripping usually is made to combination layouts, except where long runs, such as for beer labels,

for specialized litho fields

wrapper seals, etc., justify step-and-repeat arrangements. Where spot or overprint varnishing is required, the stripper will prepare an additional flat for this purpose. Red acetate or black paper rectangles are attached to the flat to represent the varnish printing areas on deep-etch or positive multi-metal plates. Border strips or cutout masks are used to prepare the varnish printing areas on negative flats. Gold or silver bronzing can be considered to be an additional printing color by the stripper. He will prepare a flat to provide the ink printing areas for the yellow ink or varnish used as a bronze base. Because label preparation usually is estimated on a single cut between labels, with no trim allowance, high accuracy layouts for this class of work should be prepared on vinyl or glass.

Camera and art work for simple color labels frequently can be simplified if the stripper will opaque or mask the solid color areas on the individual color blues of his set of flats. For can label work, standard flats can sometimes be used repeatedly. Standard backgrounds for the distributor can be stripped and vignettes and subject titles on thin film for the individual products can be taped into position on these backgrounds.

Boxes, Wrappers, and Cartons

Register in finishing operations and correct dimensions both are essential for accurate scoring, folding, and fit at the joint line, so high accuracy layouts are required here as with label work. Some of the short cuts applicable to label work, described in the previous section, also apply here. Score and fold allowances for card or heavy stock are best obtained by direct

measurement of the actual printing from a previously folded box or a blank, folded dummy.

Tin, Metal, and Plastics

For much of this work, the highest degree of accuracy in positioning is required. This is particularly true where the subsequent stamping and forming operations are indexed from the previous punching, and any spacing error is multiplied down the sheet. Layouts should be made on vinyl or glass. The accuracy and alignment of the line-up table must be checked periodically to assure its continued agreement with the punch presses.

Where folds or forming operations are involved, distortions of layout and subject design are necessary so that the text and illustrations will be correct after forming. Such distortions are frequently made in the original copy by the art department. Where this responsibility falls on the stripper, he is best guided by preparing a grid of one-sixteenth inch or one-tenth inch squares on the metal to be formed.

This grid may be printed or engraved on a white lacquer coated specimen of the metal. The product then is formed. A study of the resulting distortion of the grid lines on the formed product will guide in correctly distorting the stripping. Heat-formed plastic printed items such as toys, badges, relief maps, containers, etc., can similarly be stripped up, if a formed grid-line dummy is first made. In matching the resulting curved lines of borders or text that are to appear straight in the formed product, the stripper may find it necessary to use additional tools such as draftman's

irregular curves and specialty ruling pens. He can also distort the strip-film when it is wet and softened, to curve, stretch, and attach it in the formation required.

When metal is formed, bending allowances must be made for surface stretch. These allowances can be calculated to agree with standard sheet metal forming practices. The formed dummy grid is, however, more reliable than calculations for determining the allowances to be made in stripping.

Plastic printing frequently is applied to the back of the sheet to provide a protective plastic covering. The stripper will be required to prepare reverse flats for this application. For accurate scale, dial, and other plastic work where the size of the product may shrink because of finishing operations, or evaporation of plasticizers in curing, shrinkage allowances must be made when laying out the flats.

Techniques applicable to label work also can be used in flat preparation for some classes of tin printing and name-plate work.

Multiple Designs

Although multiples of a printing subject such as stamps, labels, playing card backs, bands, punchcards and integrated designs for textile and background patterns usually are prepared on a step-and-repeat machine, the color stripper may be required to prepare either small flats for the machine or large flats to cover the entire press-plate. The layout procedure will be governed by the accuracy required and the platemaking method specified. The subjects themselves will be prepared on film in the quantity needed

for stripping. Duplicate prints should not be combined with the original because of possible photographic differences. It is advisable to make one or two additional duplicate films as a precaution, should a serious defect or damage occur to one of them. Standard stripping procedure then will be followed.

Where film duplicates cannot be satisfactorily reproduced, because of fine or critical detail, the stripper can prepare key flats for use in making step-and-repeat pressplates in the vacuum frame. For this purpose, a single flat will be made that carries the register marks for all the subjects to be exposed on the plate. The platemaker then will use this flat to print down the marks on a set of plates either as blueline non-printing marks or as black marks by surface plate methods.

He then resensitizes his plates with the regular platemaking coating. The positive or negative of the individual subject is exposed in the first position on the pressplate, then shifted and exposed in the second position, registering it each time to the marks on the pressplate. The masking is changed in repositioning the negative or positive for each location. If a dry plate is used, fillers of equal thickness must be placed around it to cover the pressplate to avoid embossing the plate. The other color printing plates will be prepared in the same way.

In stamp and gummed label printing, allowances may be required for the effect of the gum coating on the paper size. This is important when the paper is gummed after printing, if the printing is to agree with the perforating or die-stamping machines. In textile work, an accurate matching of the texture design along film joints is necessary, particularly where fine weaves are imitated. The color stripper should work to blueline flats, using stripfilm and varying the joining lines between films on the different color flats, so as to make the joints inconspicuous.

Poster

Small poster layouts will follow standard stripping procedures, with allowances for grain direction when

they are to be printed on card stock. Large posters, in which a single poster covers the sheet, or where a number of sheets may be required to make up a poster, sometimes are drawn directly on the pressplates, using crayon or tusche, applied directly to blueline outlines printed down on a set of pressplates from a key flat. Such a flat may be prepared by engraving the key detail through a red or black coated sheet, or the key flat may be stripped up on glass or vinyl.

Current posters are largely photographic blow-ups on large films or are made by direct projection to the pressplates. In such instances, the stripper's work may be limited to stripping in sections on the negatives or positives used for projection. As the ratio of blow-up may be as great as eight or ten diameters, the slightest imperfection or misfit will be enlarged proportionally. Extreme accuracy must then govern the placement, trimming, opaquing, retouching, double printing, and other stripping operations.

Map and Chart

Stripping techniques are applied to map making in two ways: 1. place-names, symbols, cultural features, elevation tints and marginal data may be stripped or taped into position on each of the set of blueline flats, or 2. large maps may be prepared by stripping together smaller sections.

In most instances, map preparation requires accurate scale dimensions and color register. Otherwise, terrain features, road junctions, or location of important objectives may be misinterpreted. To assure map accuracy and color register, all of the different printing color details frequently are included as black outlines and text in the original copy. The stripper will prepare a set of bluelines on vinyl or glass. He then separates the individual color details on each flat by opaquing in lines and laying down tint or solid color areas. He may also convert some of the bluelines to black. The close fit required where colored roads and bodies of water are outlined with hairline printing in another color, necessitates allowing the lighter color to bleed under the bordering lines. Otherwise white gaps may appear with slight

register variations in printing. Large tint areas that are a lighter shade of one of the map printing colors, are frequently prepared on a separate flat. This complementary flat then is double printed in register with the solid color line flat in platemaking. Typography may be curved to match road or river contours. If type proofs or drawings have not been curved for this purpose, the stripper can slit part way between letters on strips of thin base film, where film must be used, securing the curved section with transparent self-adhesive tape. Stripfilm, when wet, frequently can be distorted and stretched to match the curved typography requirements.

Military and governmental agency maps are usually prepared to rigid specifications. The color stripper must be thoroughly familiar with all phases of his work before he begins the layout and stripping operations to supply a government contract.

Dry Relief Offset (High Etch)

Dry relief offset usually is regarded as a negative flat procedure in stripping. Details are similar to surface plate requirements in the preparation of layouts and flats. Dry offset is used for printing with safety or fugitive inks, for gummed labels, and for long run revenue stamp and government bond work. Improved one-bite etching methods are gradually expanding its use into the long run commercial fields. The degree of accuracy required for stripping will depend on the nature of the finished color reproduction.

Stripping operations will be more exacting because errors, broken text characters, or lack of opacity in lines and halftone dots will result in defective etching and printing that is not easily rectified. Even slight errors frequently require complete remaking of the high etched pressplate. The stripper must therefore be extremely thorough in his checking and inspection. The entire stripping area must be examined in detail with a magnifier to detect and correct possible flaws.

Step-and-Repeat Machine

Stripping for step-and-repeat machine use must be prepared more care-

(Continued on Page 137)

You know photolithography . . .

. . . we know plates and films. Because we feel that a big part of our job is helping you get the most out of our materials, we print the chart at right. After all, it's the end result that counts, and that depends upon your choice at the beginning.

Probably none of this information is news to you. But if you cut it out and stick it up next to your plate stocks, you may find it a handy reminder that will save you time, money, and headaches.

And remember—if you ever want any more information about these or any of our graphic arts products—films, chemicals, equipment—just call your Kodak Graphic Arts dealer or technical representative, or write us.

This film has STABILITY!

The .005-inch polystyrene base of Kodalith Ortho P.B. Film does not have the dimensional stability of glass. It comes mighty close, though—so close you'll find it very satisfactory for all but the most exacting jobs. To illustrate: You could subject this film to a temperature change of 20-25 degrees, or a relative humidity change of 30-40 percent, and it would vary by only one part in 1000!

The base is flexible and tough, and water-clear for easy development by inspection. Its emulsion is the same as that of Kodalith Ortho Type 2 Film. Ortho P.B. comes in a wide range of cut sheet sizes and is priced very little above regular Kodalith Films.

Text for this advertisement was set photographically.

KODAK PLATE SELECTOR		Kodak Ortho	Kodak P.B.	Kodak CTC Film	Kodak Super-Ortho Negative, Type 1	Kodak T10-2 Film	Kodak P.B.	Kodak Super-Ortho Press	Kodak 23	Kodak Isopositives	Kodak Infrared
LINE AND HALFTONE	Black and White										
	General-purpose line or halftone . . .	X									
	. . . Where extreme dimensional stability is required	X									
	Laterally reversed duplicates									X	
	Reflex copying									X	
	Halftones from color separations	X									
CONTINUOUS-TONE	Color			X	X						
	Black and White										
	Continuous-tone positives and masks from separation negatives								X		
	Continuous-tone color separation and copying colored originals				X	X	X				
	Color separation from masked or medium-contrast transparencies				X		X				
	Masks for correction of colored originals				X	X					
	Continuous-tone positives from color negatives (khtcolor)				X		X				
	Fluorescence Process—color separation				X			X			X
	Infrared black-printer										X

Need help in determining exposure?

Who doesn't—on some jobs at least? Which is why we make available separate head and transformer units from our new Kodak Process Densitometer, Model 2, provided you already have a complete model.

With this equipment, plus the special integrating cap (included at no extra charge), you have an easy-to-handle photometer with which you can take readings directly from

ground glass. Use the figures you read on your Kodak Graphic Arts Exposure Computer, and there will be the right exposure—sans trial and error, sans guesswork!

Best of all, the integrating cap gathers light from all directions. This lets you take accurate readings from any spot on the ground glass.

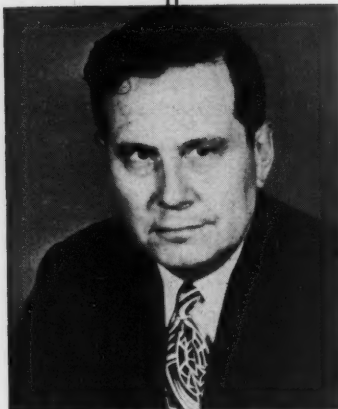
Ask your Kodak Graphic Arts dealer about this remarkable new instrument. Or write us for complete details.

Graphic Reproduction Sales Division • EASTMAN KODAK COMPANY, ROCHESTER 4, N. Y.

LTF Reviews Growth; Seeks Increased Funds



J. L. Landenberger



Wade E. Griswold

OFFICERS of the Lithographic Technical Foundation reminded 30 members at the annual meeting Feb. 7 in New York that lithography has grown—"6500 plants with 17 x 22 presses or larger"—and that LTF has grown with it. The growth has been in research facilities and in number of members. The physical growth was made possible when the Chicago Lithographic Institute vacated its quarters in LTF's Chicago research building, Glessner House, making available additional space for lithographic research.

J. Louis Landenberger, retiring president of the Foundation, who was lauded at the close of the meeting for his notable achievements during his term of office, cited the organization's growth and went on to tell of the fine response to the recently inaugurated Wadewitz Fund, money from which will go toward revising of LTF texts.

Comparing expenditures in the printing industry for research with those in other industries, Mr. Landenberger termed them "pitifully small." He said that despite the sound financial situation of LTF, more money is needed to expand the research activities even further. He also said there is a need for widened dissemination of the research findings to the men in the litho shops, in terms they can understand.

In his report to the members, Wade E. Griswold, executive director of LTF, also stressed the importance of increased funds for the research group. He suggested the possibility of charging for visits to the LTF lab, and scheduling of visits so as to minimize interruption of LTF activities. Mr. Griswold asked the members to study the dues and membership

structure of the organization with an eye toward increasing the income.

Mike Bruno, research chief, told of studies of factors affecting quality, and techniques for determining graininess being performed at Glessner House. Other active subjects are masking, diazo coatings, substitutes for gum arabic and half-toning techniques. The fundamental principles of dampening are being studied by means of the paper hygroscope.

The educational committee reported distribution of six books, most recent of which is *Stripping-Color*, by Bernard R. Halpern (*this volume is being excerpted in ML*). The book was lithographed in Canada by an LTF member as a contribution to the Foundation.

The board of directors approved a gross rather than a net budget of more than \$332,000 for 1956, highest in LTF history. John F. Perrin was elected president of the Foundation. The following directors were elected for four year terms to fill vacancies caused by the expiration of terms of office of Ronald I. Drake, W. M. Garrigus, Arthur R. Hitchings, Mr. Landenberger, L. E. Oswald and Ren R. Perry: Harry E. Brinkman, Cincinnati Lithographing Co., Inc., Cincinnati; William R. Bulkeley, Kellogg & Bulkeley Division, Connecticut Printers, Hartford; Ronald I. Drake, Champion Paper & Fibre Co., Hamilton; Sam Goller, Fine Arts Lithographing Co., Inc., Kansas City; George C. Kindred, Kindred-MacLean & Co., Long Island City; and Ren R. Perry, Harris Seybold, Cleveland.

John T. Upton, E. E. Upton Printing, New Orleans, and Elliott Donnelly, R. R. Donnelley & Sons Co.,

(Continued on Page 115)



Oxford Papers

HELP BUILD
SALES



JUST as Stevan Dohanos has pictured here, the "Here's How" booklets of a host of manufacturers of do-it-yourself products have sparked projects like this in homes across the nation.

The makers of these products, like the publishers of many fine magazines, use Oxford Papers to tell a story more effectively. Printers say that Oxford Papers make pictures look more like the product itself. If you would like to see some examples, call your nearby Oxford merchant or write us direct.



**This insert is a sample
of the letterpress results
you can get on**

OXFORD



Polar Superfine Enamel

OXFORD PAPER COMPANY

RUMFORD, MAINE • WEST CARROLLTON, OHIO

POLAR SUPERFINE ENAMEL is Oxford's finest letterpress enamel paper, admirably suited for de luxe advertising pieces, annual reports and other jobs where the highest quality color process or black and white halftone reproduction is demanded. Polar Superfine has a bright white color with no undertone. It is coated two sides with selected pigments, adhesives and plasticizers assuring extremely high gloss, maximum smoothness and a superb printing surface.

MAINEFOLD ENAMEL, for letterpress, is exceptionally well adapted for color process as well as black and white halftone reproduction in the form of booklets, catalogs and folders. It is a bright white enamel paper, coated two sides, with excellent surface smoothness and ink affinity. Maine-fold features particularly fine strength and durability for heavy-duty folding requirements.

MAINEFOLD ENAMEL COVER is a companion line to Maine-fold Enamel. Coated two sides, it has bright color, high gloss, fine surface uniformity and the additional strength necessary for use as covers for annual reports, publications, booklets, menus, divider pages and similar jobs.

TWO VALUABLE AIDS: (1) The OXFORD PAPER SELECTOR CHART helps you select the right grade of paper for each job. (2) The OXFORD PAPER COST CALCULATOR quickly gives the exact cost per 1000 sheets for common weights and sizes of printing papers. Ask your nearby Oxford Merchant or write us direct.

Nation-wide Service Through Oxford Merchants

Albany, N. Y. W. H. Smith Paper Corp.
Asheville, N. C. Henley Paper Co.
Atlanta, Ga. Wyant & Sons Paper Co.
Augusta, Maine Carter, Rice & Co. Corp.
Baltimore, Md. The Mudge Paper Co.
Bethlehem, Pa. Wilcox-Walter-Furlong Paper Co.
Boise, Idaho Blake, Moffitt & Towne
Boston, Mass. Carter, Rice & Co. Corp.
Buffalo, N. Y. Storrs & Bement Co.
Charlotte, N. C. Franklin-Cowan Paper Co.
Chicago, Ill. Caskie Paper Co., Inc.
Cincinnati, Ohio Henley Paper Co.
Cleveland, Ohio Birmingham & Prosser Co.
Dallas, Texas Bradner, Smith & Co.
Dayton, Ohio Marquette Paper Corporation
Des Moines, Iowa Midland Paper Company
Detroit, Mich. The Whitaker Paper Co.
Fresno, Calif. The Johnston Paper Co.
Gastonia, N. C. The Whitaker Paper Co.
Hartford, Conn. The Cleveland Paper Co.
High Point, N. C. Graham Paper Co.
Indianapolis, Ind. The Whitaker Paper Co.
Kalamazoo, Mich. Birmingham & Prosser Co.
Kansas City, Mo. Chope Stevens Paper Co.
Knoxville, Tenn. Blake, Moffitt & Towne
Little Rock, Ark. Blake, Moffitt & Towne
Long Beach, Calif. Green & Low Paper Co., Inc.
Los Angeles, Calif. Storrs & Bement Co.
Louisville, Ky. MacCollum Paper Co.
Lynchburg, Va. Birmingham & Prosser Co.
Manchester, N. H. Graham Paper Co.
Memphis, Tenn. Louisville Paper Co.
Milwaukee, Wis. Roach Paper Co.
Minneapolis, Minn. Blake, Moffitt & Towne
Nashville, Tenn. Blake, Moffitt & Towne
Newark, N. J. Bulkley, Duntun & Co., Inc.
New Haven, Conn. Bulkley, Duntun & Co.
New Orleans, La. (Division of Carter, Rice & Co. Corp.)
New York, N. Y. Storrs & Bement Co.
Oakland, Calif. Graham Paper Co.
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Philadelphia, Pa. Bulkley, Duntun & Co., Inc.
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Portland, Maine The Whitaker Paper Co.
Portland, Oregon Blake, Moffitt & Towne
Providence, R. I. Western Paper Co.
Reno, Nevada Atlantic Paper Co.
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Rochester, N. Y. Blake, Moffitt & Towne
Sacramento, Calif. General Paper Corp.
St. Louis, Mo. Brubaker Paper Co.
San Bernardino, Calif. C. H. Robinson Co.
San Diego, Calif. Blake, Moffitt & Towne
San Francisco, Calif. Blake, Moffitt & Towne
San Jose, Calif. Carter, Rice & Co. Corp.
Seattle, Wash. Blake, Moffitt & Towne
South Bend, Ind. Blake, Moffitt & Towne
Spokane, Wash. Cauthorne Paper Co.
Springfield, Mass. Genesee Valley Paper Co.
Stockton, Calif. Blake, Moffitt & Towne
Tacoma, Wash. Blake, Moffitt & Towne
Toledo, Ohio Birmingham & Prosser Co.
Tucson, Ariz. Blake, Moffitt & Towne
Washington, D. C. Bulkley, Duntun & Co.
Worcester, Mass. (Division of Carter, Rice & Co. Corp.)
York, Pa. Mill Brand Papers

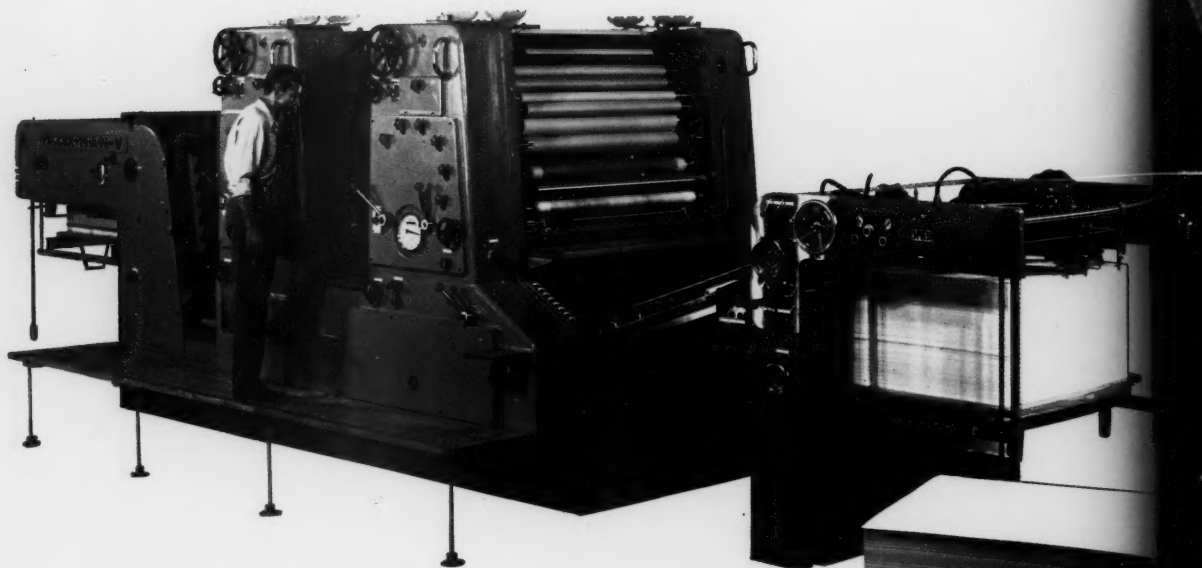
OXFORD PAPER COMPANY, 230 Park Avenue, New York 17, N. Y. ★ OXFORD MIAMI PAPER COMPANY, 35 East Wacker Drive, Chicago 1, Ill.

Mills at Rumford, Maine, and West Carrollton, Ohio

Chicago 1, III.

MILLER-M.A.N. OFFSET PRESSES

A fresh approach to the problems of offset printing has resulted in a modern, almost revolutionary design for the Miller-M.A.N. Offset Press. New ideas, and new applications of time-tested devices for inking, sheet handling and registering make these presses capable of producing the highest quality of lithography at profit-making speeds. At the same time, their massive construction and unusual design assure trouble-free operation and easy maintenance. Write for complete details on these outstanding presses.

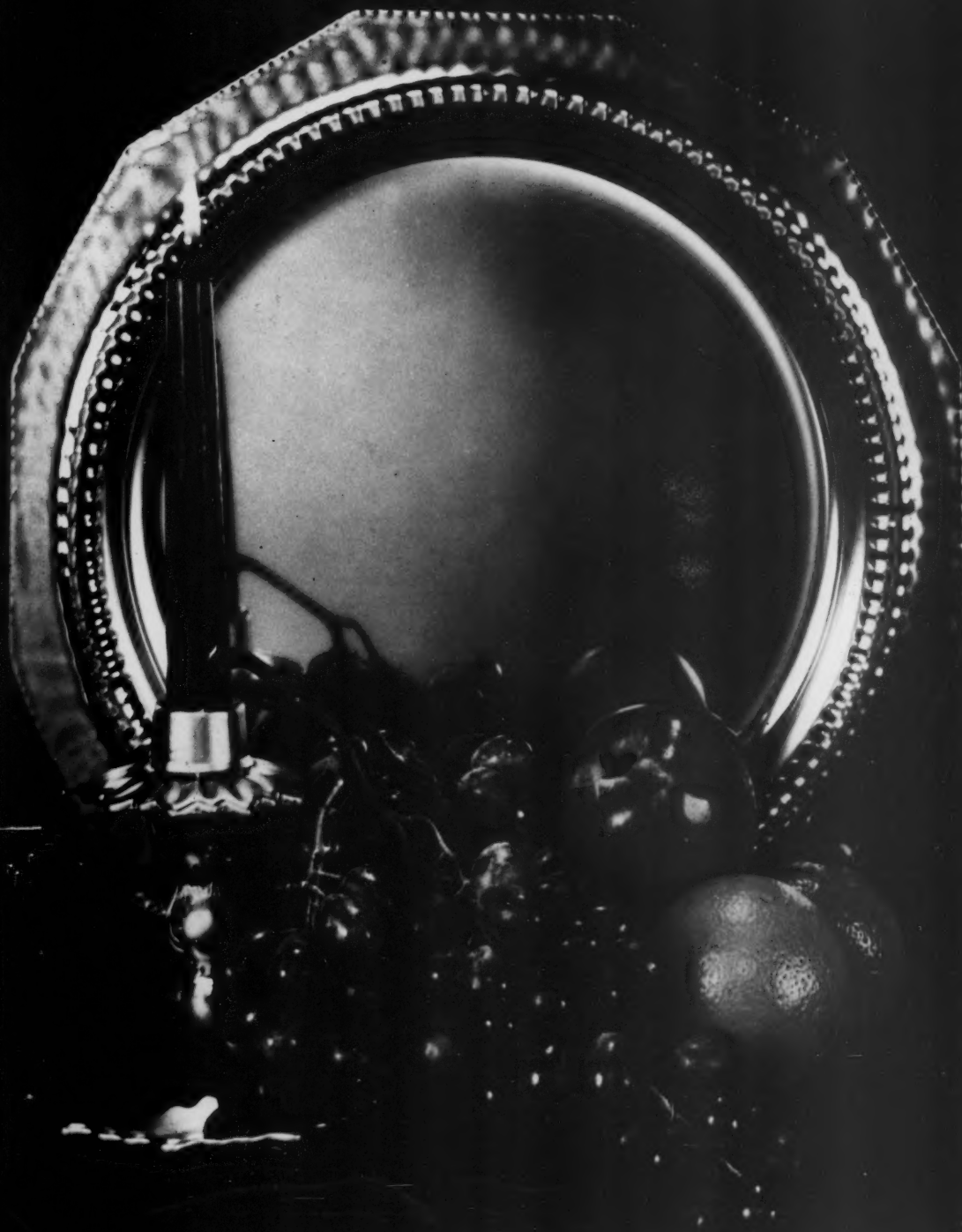


MILLER PRINTING MACHINERY CO.
1109 Reedsdale St., Pittsburgh 33, Pa.

MILLER PRINTING MACHINERY CO. OF CANADA LIMITED
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Lithographed in U.S.A. on a Miller-M.A.N. Offset Press

SE



Dye Transfer by S. J. Link

NEW

**B
B
D**



*Now...a completely
new all-purpose
offset black*

EXCELLOLITH

New BBD EXCELLOLITH 470 is a different, better black ink... a *modern* ink designed for today's conditions in the offset-litho pressroom... a versatile *ready-to-use-from-the-can, all-purpose, fast-setting* ink that gives uniformly first-class results on coated and uncoated stocks, on single and two-color presses alike.

EXCELLOLITH 470 BLACK dries to a dense, scratch-resistant finish... without a trace of dryback or graying out. It has excellent water-resistance... will run spare forms with no tendency to emulsify. And, because you can get level impressions of large solids without piling a lot of EXCELLOLITH 470 on the rollers, you can depend on reverse type in heavy forms to remain open and scum-free without constant acid-sponging.

EXCELLOLITH 470 BLACK is winning its place in litho shops all over the country as an all-purpose black that can be relied on for crisp, snappy, sparkling jobs on any stock... better working qualities on any press... freedom from plate polishing on long runs and short. You'll see the difference once you try this new *modern* black ink... so order a 5-lb. can of EXCELLOLITH 470 today.

**4
7
0**



LITHO PRODUCTION

Clinic

by Theodore F. Makarius

Streaks, Tinting and other Problems

Tinting

Q: We would like to get a complete analysis of this sheet. As you can see there is a scum over the entire surface. We are of the opinion that most of this trouble lies in the press, however we would like this confirmed. The penciled areas are where we polished on the plate. This job was run on a 22 x 28 press from an albumin plate.

A: I have examined the sheet you submitted and do not think the tint was caused entirely by press operation. The fact that the polished areas stay clean is an indication that the plate surface was not prepared properly.

It is quite possible that when developing out the plate, there was some albumin left in the grain. When this condition exists, the scummed area cannot take ink immediately on the press because the surface of the plate has a coating of gum arabic. The gum being hygroscopic, holds water, and as it wears off the surface of the plate, the albumin held in the depth of the grain begins to take ink.

My suggestion is that the plates be developed out cleaner, or if necessary, given less exposure time.

Uneven Drying

Q: We are sending the attached printed sheet to you for an opinion. Note the first side of the sheet that was printed dried evenly while the second side dried in spots. It is possible to rub in areas where no printing appeared on reverse side without smearing.

Could it be possible that the vehicle

on the reverse side penetrated the sheet and has some bearing on drying? Have you ever witnessed anything like this, or do you have any comment?

A: Regarding the uneven drying of the sample you submitted, I have seen this happen many times and would say that it is not at all unusual.

The fact that the ink dried in spots is not entirely due to the penetration of the vehicle from the first printed side. It is true that when ink penetrates into the stock because an excessive amount of thin varnishes or oils has been added, it retards the penetration of the vehicle on the reverse side. On the sheet you submitted, which I am returning, you will note that this is not so.

The spots which are dry are not backed up with ink. In my opinion, this looks as though a previous image on the blanket absorbed some of the grease or oil. You can easily see the design of the previous job where the light areas appear on the sheet. It has been my experience that it takes anywhere from five to ten thousand impressions before this greasiness wears off the blanket.

Image Wearing

Q: We have been having trouble lately with plates going sharp. It is very difficult to get more than five or six thousand good impressions from our albumin plates and although we carefully checked the pressure, roller and damper setting, nothing seemed to help. We are sending some sheets of a job

plus the plate, after running five thousand impressions, for you to examine. We hope that you may be able to determine the cause.

A: After carefully going over the plate and sheets you submitted, we find that the plate could be restored by rubbing up the image with asphaltum and black ink. A close inspection of the printed sheet shows that the ink was run very spare, especially in the portion of the sheet where the work was sharp. Could it be that you purposely ran the black gray and tried to accomplish the job with too thin a film of ink rather than reduce the color with Laketime?

The fact that the plate could be rubbed up and the image restored may indicate that too thin an ink film was run and the image lost its affinity for grease.

Very often the application of lacquer or Dubar to the plate before going to press will make the dot very hard or glassy and the plate may be slow in rolling up when put on the press. If too thin a film of ink is applied, the work area will very soon refuse to ink up, and a print similar to the sheet submitted will result.

As an extra precaution, it may be wise to have a mixture of one oz. Oleic acid to one quart Asphaltum on hand. Use this solution for washing out the plate before going to press and in the case of long runs, repeat at lunch time and evening. This will

(Continued on Page 135)

READERS:

Are you taking full advantage of your lithographic magazine?

THE staff of *Modern Lithography* has been trying, in several important ways, to make the pages of your magazine more valuable to you. Increased in-person coverage of litho club and trade association meetings has been one way. Interpretative articles on subjects of vital interest to you is another. That's the reason for our series on presensitized plates (No. 2 appears in this issue), metal decorating (No. 2 in this issue), elements of photography in the litho shop (No. 1 in this issue), direct-image offset, color stripping, visits to typical litho shops (No. 4 in this issue) and expanded coverage of litho news in all parts of the United States and foreign countries.

Our climbing circulation figures indicate your appreciation of our efforts. But are you taking full advantage of your lithographic magazine? In past months, many of you have availed yourselves of the services of our two regular columnists, *Theodore C. Makarius* (Press Clinic) and *Herbert P. Paschel* (Photographic Clinic). The purpose of this page is to remind you that if you have a troublesome problem regarding press or camera, these specialists are ready to help you solve it. If you are a subscriber to ML and have a question, why not jot it down on the coupon below and send it along to us? We'll be glad to help you, and the service is free.

MODERN LITHOGRAPHY
Box 31, Caldwell, N. J.

☐ Mr. Makarius
(Press)

☐ Mr. Paschel
(Photography)

My Question: _____

(Only your initials will be used)

Name

Company

Address

PHOTOGRAPHIC

Clinic

By *Herbert P. Paschel*

Graphic Arts Consultant

Q: We have experienced considerable variation in the performance of factory packaged developers and feel that we can obtain better uniformity by mixing our own. Can you give us a good formula, other than D 85, for halftone development?

F. T. L., Minneapolis, Minn.

A: There are a great number of developers to choose from, most of which are published by the film manufacturers on the direction sheets enclosed with their products. High energy developers without paraformaldehyde include the following: Ansco 70, Ansco 81, Gevaert G220, Gevaert G226, Gevaert GD 190, Dupont 121-D, Dupont 125-D, Kodak D-8 and Kodak D-11.

Although all of these may be classified as high energy developers, they are not identical in performance, (unless identical in composition), and will produce different levels of contrast, density and effective emulsion speed. In addition, the keeping quality in the tray or stock varies also.

Whether or not you will obtain better uniformity by mixing your own solutions remains to be seen. The readymix manufacturers exercise fairly rigid manufacturing controls and, aside from a rare slip-up, the output of any one brand has been reasonably uniform. If you have been using a number of different brands, this could explain some of the variations you complain of. A slight difference in composition can make considerable difference in performance. It is not correct to assume that the readymix developer of one brand is intended to be identical to another.

Camera troubles? Why not drop a note to Mr. Paschel, c/o Modern Lithography, Box 31, Caldwell, N. J. He'll be glad to draw on his years of experience as a consultant to answer your question.

From my own experience, the paraformaldehyde developer provides the maximum contrast, density and dot sharpness but has an extremely short and unstable working and shelf life. While you may gain increased emulsion speed with a non-paraformaldehyde developer, you will sacrifice contrast, dot sharpness and density. An excellent high contrast developer of exceptional long life and keeping quality is Gevaert formula GD-190, (Ansco 81 is quite similar).

I do not know how precise your testing conditions and standards are and therefore cannot place too much reliance on the validity of your findings. If, after you mix your own solutions, you still experience unaccountable variations, I would suggest you also look elsewhere. Current fluctuations could vary the strength of your arc lamps enough to cause some of the variations encountered. Inaccurate diaphragm settings are another possibility. Lack of temperature controlled processing solution and variations in agitation during development, are additional possibilities. I would make a wide variety of tests before blaming it all on the developer.

Q: Are there sufficient advantages to justify making a dye-transfer print from a color transparency and using the print for copy?

F. M. L., Camden, N.J.

A: There are too many variables in circumstances to give you a clearcut yes or no answer. Assuming that the color print will be of top quality, the following advantages are in favor of the print. Because it is viewed by reflection, as is the reproduction, the physical and psycho-physical differences between the color print and the reproduction will be considerably less than that between the average transparency and its reproduction. In addition, the color print has tone and color characteristics that are within the reproducible range of color lithography. The above are tremendous advantages when comparing copy and reproduction for final approval. Other advantages are the ability to make corrections and alterations both during the making of the print and afterwards; the opportunity to compose two or more prints to make a complete layout, etc. Then too, separating a good dye-transfer print is somewhat easier than separating a color transparency.

Q: What is the best method for checking the copyboard illumination for uniformity?

J.A.S., New York

A: The copyboard illumination must be uniform in two respects—intensity and color temperature. To measure these two characteristics of light you need two types of measuring instruments—a light meter and a color tem-

(Continued on Page 135)

LITHO BLANKETS

*It is important to use the right one for each offset ink
says a manufacturer, who gives some tips*

LITHOGRAPHERS should know what blanket to use with what ink in order to get maximum quality from that ink on the printed job. There are several important differences in types of litho blankets and there are many kinds of inks, so it is easy to ruin a job through failure to recognize these differences.

That was the crux of remarks made before the Washington Litho Club at the January meeting by Emmanuel Gurin, president of Gurin-Rapport, Inc., blanket manufacturers. (Mr. Gurin's talk was reported briefly in the February ML, page 108.)

He covered several aspects of the blanket picture in his remarks. First, he traced development and improvement of blankets from 1935 to date. Then he described the four types of synthetic blankets and listed the kinds of jobs for which they are adapted. He concluded by answering technical questions from the floor.

Natural rubber was the chief material for litho blankets in 1935, he said. It printed well, but it often embossed and got tacky. Furthermore, it was not feasible to print gloss inks on coated stock with these blankets.

Two years later an all-synthetic blanket was developed that had better resistance to swelling and engraving but with no improvement as far as tack was concerned. This blanket was not generally accepted in the lithographic industry, according to Mr. Gurin, and rubber prevailed as the leading blanket material until 1945.

During World War II, natural rubber was in scarce supply, so, out of necessity, a synthetic rubber formulation was perfected that did a better job on coated stock. This blanket is still in use today (Number 1 in the table).

Changes in the metal decorating

industry, to so-called heat-set inks, were taking place during this period. "Stronger" inks—not in color, but in higher solvent content—were coming into use, and the blanket used for lithographing on paper no longer did the job for metal decorating.

Interest in web offset for publication printing around 1950 inspired development of blanket No. 4, to handle stronger quick-set inks, which are needed for the fast drying requirements of web printing. This blanket is more resistant to solvents than the others.

The other blanket, No. 2, was developed for intermediate jobs, for handling linseed varnish inks and weak quick-sets.

All four blankets have the same hardness, Mr. Gurin explained. "They differ only in their more or less solvent resistant formulas. If ink is brought in for a job that is too strong

for the blanket, it just won't work," Mr. Gurin added. "That gives you a sort of automatic correction if you are using the wrong blanket."

In the question period, A. D. "Pat" Kirkpatrick, a member of Gurin-Rapport, noted that the term "heat-set" can be misleading. He said he knows of cases where a lithographer was using such an ink but was not using heat to set it.

Other representative questions follow:

Question: What is the best blanket wash?

Mr. Gurin: Said that he did not care to recommend a specific wash and that many will do a good job. In his opinion a petroleum type wash with a distillation range of 240-285 degrees Fahrenheit gives good results. "You don't want a solvent that will evaporate too quickly, nor too slowly,"

(Continued on Page 137)

Synthetic Blankets

1. Works well with linseed varnish inks, but not on coated stock.
2. Used with linseed varnish inks and weak quick-set inks.
3. Handles stronger inks but not those with linseed varnish.
4. Handles stronger quick-set inks.

All four have same hardness. Difference is in more or less solvent resistant formulas, to maintain viscosity of the ink.

STAFF members of the National Association of Photo-Lithographers will sponsor a morning session at the 35th annual convention of the Southern Graphic Arts Association April 12-14. The convention, together with the 17th annual Exhibit of Southern Printing, will be held in the Eola Hotel, Natchez, Miss.

The NAPL officers, Rex G. Howard, president; Walter E. Soderstrom, executive vice president; Frank R. Turner Jr., cost accountant; and Robert S. Emslie Jr., secretary—will talk about lithographic costs, problems, expansion, advertising and selling. Their discussions are scheduled for Friday morning.

Tentative Program

The tentative program also lists other speakers who have accepted invitations to address the convention. The opening session will be called to order Thursday morning by R. G. Graham, president of SGAA. Principal speaker addressing the opening session will be J. Richard Jackman, president of Printing Industry of America. A second address by a prominent representative of the printing industry is being planned.

Saturday morning, O. F. Duensing, sales manager of Vandercook & Sons Inc., Chicago, will address the convention on the topic: "Minimum Makeready Through Precision Form Preparation". Two other men will speak on the gravure process and paper problems.

A full social program is being planned which will include tours of the ante-bellum homes of Natchez, two luncheons, a barbecue and the annual banquet. At the luncheon on Thursday, past presidents of SGAA will be honored guests. John McConaughy of Harris-Seybold Company will be the speaker for this occasion. The barbecue is scheduled to be held Thursday evening.

The annual awards luncheon is scheduled for Friday and the annual banquet Saturday evening. As nearly as possible, all business sessions will be scheduled in the morning to allow those attending the convention to visit the historic homes of Natchez in the afternoon.★



W. E. Soderstrom

SGAA To Hear NAPL Speakers At April Meeting

Meeting Program

WEDNESDAY, April 11

4 to 8 p.m. Advance Registration: Registration desk will remain open until 8 p.m. to serve early arrivals and to answer inquiries.

17th Annual Exhibit of Southern Printing: The annual exhibit of Southern Printing will be displayed in a prominent place throughout the convention.

THURSDAY, April 12

8:30 a.m. Registration: The registration desk will be open all day.

9:30 Opening Session: Call to Order, R. G. Graham, Nashville, Tennessee, president, Southern Graphic Arts Association.

Invocation

Keynote Address. J. Richard Jackman, Concord, New Hampshire, president, Printing Industry of America.

Announcements: Mr. Graham. Address. Speaker to be announced.

1 p.m. Luncheon: — Presentation of plaques to past presidents Address: Joseph McConaughy, Harris-Seybold Co.

3:00 Visit to historic homes of Natchez.

6:00 Barbecue

FRIDAY, April 13

8:30 a.m. Registration: Registration desk will remain open all day.

9:45 Morning session will be under the sponsorship of the officers of the National Association of Photo-Lithographers.

"Lithographic Costs in your Area" by Frank R. Turner, Jr., cost accountant.

"Everyday Lithographic Problems" by Robert S. Emslie, Jr., secretary. "Planning to Expand Lithographically?" by Walter E. Soderstrom, executive vice president.

"Advertising and Selling Lithography" by Rex G. Howard, President.

1:00 p.m. Annual Awards Luncheon. Awards certificates will be presented at this luncheon.

2:30 Joint Meeting Boards of Directors, Southern Graphic Arts Association and Southern School of Printing.

3:30 Visit to historic homes of Natchez. Evening program to be announced.

SATURDAY, April 14

8:30 a.m. Registration: Registration desk will remain open until 3 p.m. to take care of inquiries.

9:45 "Minimum Makeready through Precision Form Preparation" by O. F. Duensing, sales development manager, O. E. Vandercook & Sons, Inc., Chicago. Two other addresses will cover paper problems and gravure. Speakers and topics to be announced.

2:00 p.m. Annual Business Meeting Southern Graphic Arts Association. Reports of Committees. Report of School Director. Election and Installation of Officers. Selection of Time and Place for 1957 Convention.

3:30 Visit to Historic Homes of Natchez

7:00 Annual Banquet

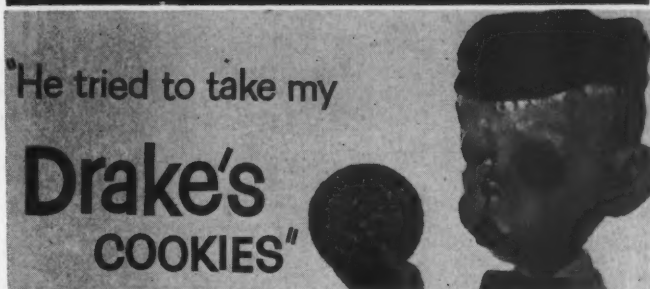
Address: Hon. Tom Q. Ellis, clerk of the supreme court, State of Mississippi.★

First



Viewing "Best Poster of the Year" lithoed by Spurgeon-Tucker, Inc. are (l.-r.) Lee Malone, director, The Museum of Fine Arts, Houston; Thomas C. Howe Jr., director, California Palace of the Legion of Honor, San Francisco; Daniel Catton Rich, director, The Art Institute of Chicago; and Horace Jayne, vice director, The Philadelphia Museum of Art.

Second



Lithoed by Spurgeon-Tucker, Inc. for Young & Rubicam agency.

Third



Lithoed by Edwards & Deutsch Litho Co., for Needham, Louis and Brorby agency.

Spurgeon-Tucker Wins Two Awards

SPURGEON-Tucker, Inc. lithographed two of the first three winners in the 24th National Competition of Outdoor Advertising Art, sponsored by the Art Directors Club of Chicago. The striking Life Sayers and "Drake's Cookies" posters, shown above, won gold and silver medals, respectively, for the litho house. Edwards & Deutsch Litho Co. took third prize with the Ken-L Ration poster.

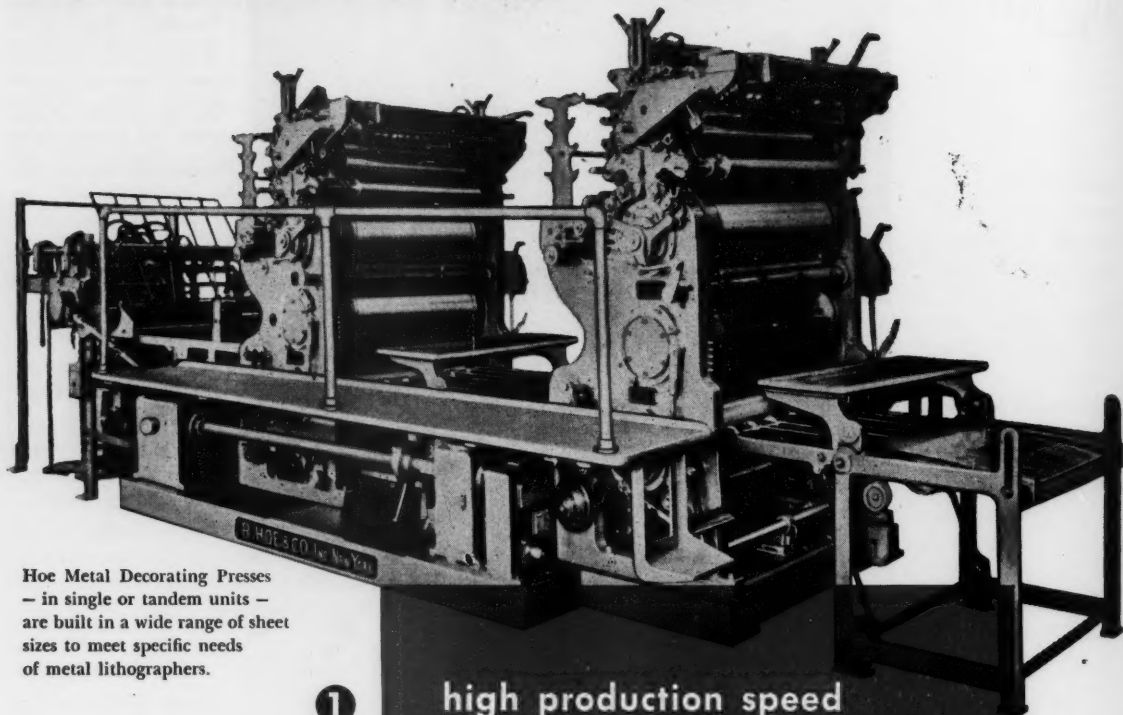
It is expected that a large number of lithographers will be among the other winners in the competition. They will be listed in May in the Poster Annual by Outdoor Advertising Inc., as the "100 Best Posters of 1955."

Orville Sheldon, art director of Foote, Cone & Belding advertising agency, Chicago, was chairman of the com-

petition and exhibit committee, which included a jury of art directors, museum directors and agency and business executives. The jury viewed nearly 1000 entries, judging them for value of the idea and excellence and ingenuity of design, composition and technique. The competition lasted two days.

To facilitate judging, the designs were passed before the jury on a conveyor belt in a darkened room, so that only one design was visible at a time. To cast a vote for a design, the juror merely pressed a button by his chair and the votes were immediately tallied. Presentation of the awards will be made at a luncheon in the Sheraton Hotel, Chicago, March 15.★

Here's what you secure with a
HOE straight-line-feed
METAL DECORATING PRESS



Hoe Metal Decorating Presses
— in single or tandem units —
are built in a wide range of sheet
sizes to meet specific needs
of metal lithographers.

- ① high production speed
- ② precision of registration
- ③ easy and safe operation
- ④ minimal space requirements
- ⑤ low maintenance expense
- ⑥ long service life

A Hoe representative will be glad to explain the many special features in design and construction that make all these advantages possible. For full information address

R. HOE & CO., INC.

910 East 138th Street • New York 54, N. Y.
BRANCHES: BOSTON • CHICAGO • SAN FRANCISCO
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THE LITHOGRAPHIC PRESS

By G. H. Brown

American Can Co.

THE lithographic press is the foundation of the metal decorating industry. While it is true that other methods of reproduction, such as silk screening, rubber plate printing and dry offset are utilized to some extent, the lithographic press remains by a very wide margin the principal tool of the metal decorator. This tool is a model of mechanical complexity but it must be more than just a machine. To satisfy modern requirements for high quality and high production rates it must be a precision instrument. It must be built as a precision instrument and maintained as one.

This need for precision must be kept in mind when new press units are purchased. When purchasing the lithographic press unit the initial cost is considered an important factor. The cost should be weighed very closely with mechanical perfection that has been built into the unit. The performance of the 'dream' press is such that the manufacturer must have high standards and must have a nearly perfect unit. The guarantee of the press performance should be investigated very thoroughly with the history of its performance in other plants.

Lubrication System

The lubrication system of the press must be well engineered to make it produce satisfactorily over a long time without costly overhauling. Many systems are presently being used satisfactorily, but each one must be attended daily by mechanically trained men. The lubrication of the printing unit is sometimes made too simple and is therefore often neglected entirely.



G. H. Brown

The selection of the lubrication should be recommended by the manufacturer of the equipment, with no deviation. A few dollars spent in lubricants and a trained man supervising lubrication will result in good performance and much longer operation before overhauling is required.

The lithographic press should be inspected once a week for loose parts such as screws and nuts. A loose tap screw can cause trouble because many times they fall on the sheets and are carried between the cylinders. This usually results in press down-time and several thousand dollars worth of costly repairs and cylinder rebuilding. The press that is designed for easy inspection of the gears and other moveable parts is a great asset to the mechanical department. The ease of repairs and removal of gears and cylinders also is very desirable. The cylinder gears must be kept clean and free from drier, ink, and dirt.

The various wash-up machines that have been developed have made it possible for the press to maintain more

accurate settings of the inking mechanism. Before these machines were developed, it was necessary to remove the rollers for cleaning and washing. In removing the rollers, the settings were often disturbed. The rollers were also sometimes damaged, which would result in costly maintenance.

Safety Devices

The lithographic press unit should have satisfactory guards and safety devices installed. Sometimes state laws are such that special installations are needed. The lithographic press can be a most dangerous form of equipment. Some pieces of equipment may take a finger; the cylinders in a lithograph unit can take a whole arm. A press should never be run with the cylinder guard removed. The safe button should always be locked when work is being done in a dangerous position. Loose fitting clothes, such as flapping sleeves and neckties, should not be worn near the cylinders when the press is operating. Not only do some presses not have satisfactory guarding arrangements, but they do not have satisfactory electrical safety devices so that the operator can shut off the unit before serious damage occurs.

A modern lithograph press is much larger than the first rotary press. This means that the pressman cannot reach around to do the necessary adjustments and setting up. Rapid setup time is accomplished by having the feed table and gauging units clearly marked so that these adjustments can be made without the pressman carrying around a scale and gauge as was formerly done. Standard fittings should also be installed so the press-

Manual Operations

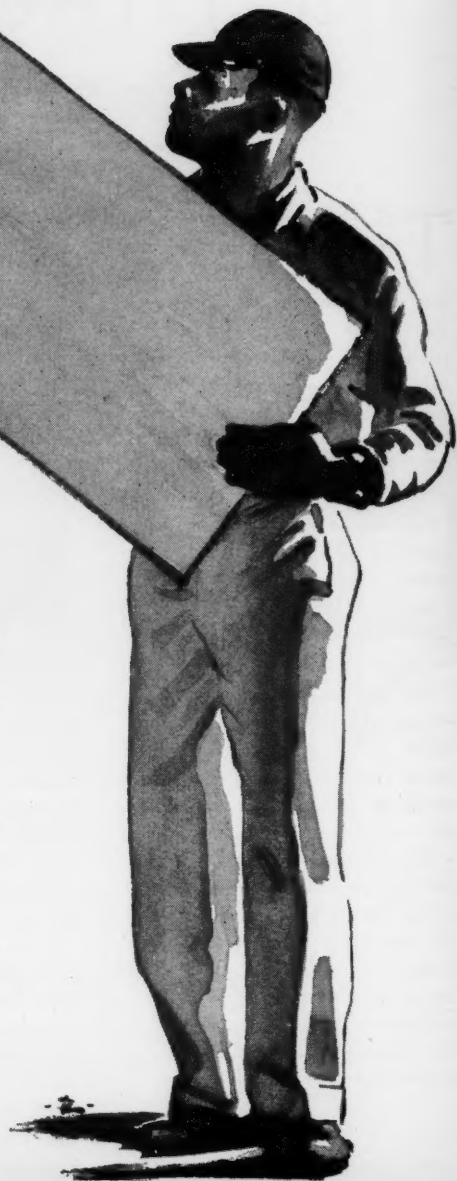
—how many have you in your plant?

Stop and think! For, should you have a great many, your production costs will be high. High, and may go *higher*. . . . It's a trend.

Fully aware that manual operations often slow the pace of production and add to costs, modern industry has come up with a new word, "Automation." In a nutshell, "automation" is merely *elimination of manual operations*.

We of Wagner Engineering have long known of *automation*. Automation lets the equipment do the job. It eliminates manual operations that add nothing to quality or production volume.

Why not invite us to look over your production units to see if we can streamline your operations? There's no obligation.



WAGNER LITHO MACHINERY

Metal Decorating Machinery

Harborside Terminal, Unit 3, 34 Exchange Place, Jersey City, N. J.



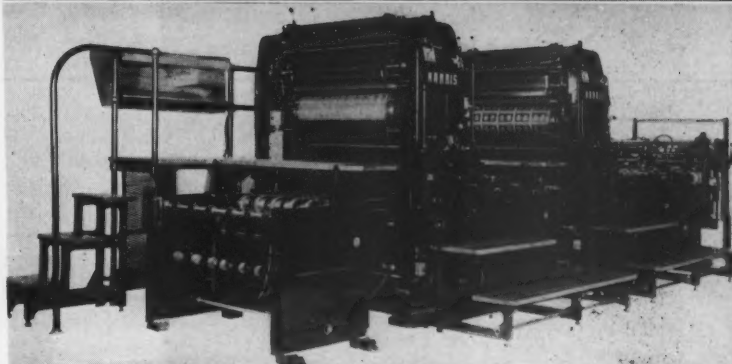
Division

man can make various adjustments with the minimum number of tools. A pressman, with the assistance of the feeder, can make the various setups and obtain the lay as quickly on the new large presses as was formerly done on the smaller presses, because of this advance engineering. The installation of ball and roller bearings in the various rollers has helped the pressman maintain the micrometer adjustments necessary. These adjustments can also be changed or set up much more quickly and accurately with the advent of these new roller or ball bearings.

Larger Presses

Practically no attempts were made, during the first 30 years of rotary press operation, to build a press which would run satisfactorily with sheets larger than 26 x 36". The principal reason, of course, was that larger sheets of tin and steel were not readily available. During the 10 years following this 30 year period, larger sheets of steel were made readily available and presses were built to run them. The success of these units and the availability of larger sheets resulted in the demand for more larger presses. The standard presses being purchased today are much larger than the 26 x 36", and most of them are 36 x 42" or 45". The premium paid for the purchase of smaller sheets has resulted in the abandonment of older presses and a change over to the larger units. Some of the first larger units were operated with the same gauge mechanism as the smaller presses formerly used. When trying to run the larger sheets with the old obsolete mechanism or gauging, many factories found they had considerable difficulty in obtaining accurate registration.

The speed at which most presses operated was kept down by the inability of the feeders to hand feed the presses faster. (See Article No. 1, Feb. ML, page 69) In the mid-thirties the perfection of the automatic feeds made it possible to speed up the presses to 75 sheets per minute. The proper registration above this speed was not possible until improvements could be made on the mechanical gauging of the presses to perfect the registration. Progress in this direction has been very



Modern metal decorating presses: Top — R. Hoe & Co.; Bottom — Harris-Seybold

slow, and one of the burdens which has plagued this development is the advent of bigger sheets mentioned above. After 15 years of experimenting and many thousands of dollars spent by various companies, we now seem to be getting the desired results.

When operating the first rotary presses, the operator slid the sheets into the timed pull-in wheels. After the sheet was dropped on a conveyor table, spring loaded pushers forced the sheet against the front gauges as the grippers closed on the sheet. Later on, reciprocating spring pushers were developed. Sheet control was improved because uniform velocity runs permitted more settling time for the sheet against the spring pushers. Another function of this mechanism was to permit a constant feed line, because at the end of the constant velocity run the spring pushers dropped below the

feed line to pick up the succeeding sheet.

Thus, dropping the sheet from one level to a lower level was not necessary, thereby improving sheet control and also increasing speed. As speeds were increased it was found that the sheets actually were running away from the gauges and it was necessary to install magnetic hold-back sections. The use of the magnetic hold-back roller and sections made it possible to start tandemizing units so that more than one color could be applied during each operation.

Magnetic Rollers

As speeds and sheet sizes were increased, it was found that these magnetic rollers could not be depended upon to function steadily. As a result, machines were designed to feed in a straight line or force the sheet to travel up hill a few degrees. This made it

SPEED UP Metal Decorating!

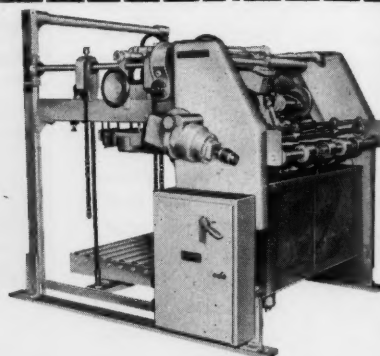
Machinery, built to do
more jobs... better!

DEXTER METAL SHEET FEEDERS

Continuously and automatically separate, caliper and advance metal sheets from a pile to the registering station of coater or press, at speeds up to 150 sheets per minute.

Built in a wide range of models to handle all standard sizes and weights... and for attachment to all standard machines.

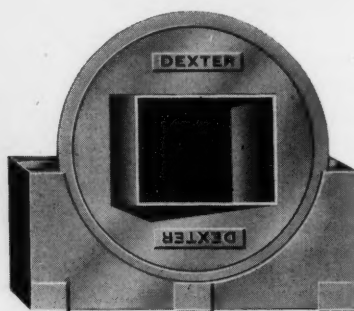
Ask for reprints of magazine articles discussing the features and economies of these feeders.



METAL SHEET PACK TURNOVER

Sheets delivered face down from the drying oven are trucked on skid into the turnover. A second skid is placed on top of pile and a half revolution of the turnover brings pile of sheets to face up position, resting on the second skid.

No clamping of piles. Built in two sizes, for handling sheets up to 36 x 36" and up to 36 x 44". Minimum size sheet is 16 x 16". Maximum load is 6,000 lbs. Sheets of any thickness can be handled. Pile is squared in both directions into box during turning process. Takes approximately 20 seconds.

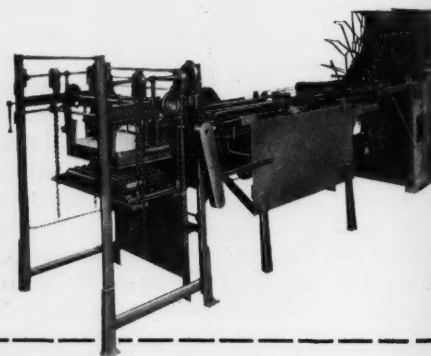


OVEN END STRIPPER

Automatically removes lithographed or coated sheets from the wickets at the discharge end of the drying oven, without manual assistance.

Built in a wide range of models to handle all standard sizes of metal sheets, with pile capacities and speeds equal to the feeder being used.

Unit delivers to Dexter Pile Delivery without scratching or damage.



DEXTER FOLDER COMPANY

General Sales Office

330 West 42nd Street New York 36, N. Y.

ILLUSTRATED CIRCULARS ARE AVAILABLE
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3259

MODERN LITHOGRAPHY, March, 1956

possible to take advantage of the added speed and weight by using the gravity force rather than the magnetic force to hold the sheets back against the pushers while running through the gauging station. Frequently the increased sheet sizes were accompanied by a decrease in basis weight, and it became apparent that buckling and warping would take place in the gauging station because we could not push these larger and thinner sheets with the gauges uniformly in the time allowed.

The practice of gauging the sheets on the run in an attempt to obtain perfection in registration has now been developed to relieve this buckling condition. The practice allows more time for the gauging so that there is not such a shock when gauges touch the sheet. Use of traveling side gauges as well as the new practice of rear gauging has been put into production use, and we are again able to do a satisfactory registration on large sheets at exceptionally high speeds.

Field experience has shown that more ink rollers are necessary in modern day presses. With the advent of larger sheets, this was necessary to prevent the front of the sheet from having a heavier print than the trailing edge. Additional rollers also give us less ghosting trouble than we had with the older smaller presses.

The dampening system should be developed into more of a workable machine. It is the weak point of our presses and it requires constant watching on the part of the pressman in order to do a satisfactory job. The advent of multi-metal plates has introduced a smaller safety factor because less water is used in the operation of our presses. Thousands of pressmen have found the knack of maintaining this; others are not learning as quickly. Dampeners should be washed between unsimilar jobs. Good water regulation is impossible if any grease or ink is on the surface. The water must be fed evenly in an unbroken film to the plate. The dampener must be well adjusted and be engineered so that these fine adjustments can be maintained.

Many new roller covers have been

developed and tested. Some of these have resulted in improvements but as yet we do not have a satisfactory system.

The lithographic press has made itself invaluable to the modern packager and merchandiser. Conversely, modern merchandising methods are making greatly increased demands on the services of the lithograph press. From bottle caps to 55 gallon drums; from waste baskets to the modern detergent can; the many attractive packages on the shelves of our growing self-service food stores are the result of im-

provements in modern day printing. The lithograph press must be able to produce better designs on metal for our can makers.

This means we must take good care of our lithographic presses if we wish to do good and economical work. We must work hard in development to obtain better and more work from our future presses. We must build better dampening units into our presses if we wish to strive toward automation. And, since the press is the foundation of the industry, we are striving to build a better foundation.★

"Macbeth lamps top them all on every count!"

Vincent Del Principe,
president
Triangle Litho Print Co.,
New York



Vincent Del Principe knows this from his own experience—and he hears the same thing in the shop! The photos show him discussing Macbeth Arc Lamps with his foremen. Top to bottom: Manuel Favorito, camera department; Charles Foppiano, litho department; James Toja, "Duplico" department. Read some of their comments:

PRODUCTION:

"These Macbeth lamps cut exposure in half and give production a big boost"

ECONOMY:

"With Macbeth lamps we use only two sets of carbons a day instead of the two sets an hour we used before."

MAINTENANCE:

"When it comes to trouble-free operation, nothing else can match Macbeth lamps. Eliminating maintenance problems saves us money and keeps production high."

Macbeth Arc Lamps will give you the same advantages—help you cut costs and boost quality production—whether your operation involves lithography, photoengraving, gravure, or blueprinting. See your dealer or write us today.

MACBETH ARC LAMP COMPANY, 141 Berkley St., Phila. 44, Pa.



J. V. Borland

Watson-Standard Names Borland

Joseph V. Borland, Watson-Standard Co., Pittsburgh, Pa., has been appointed vice president of the firm, it was announced recently. Mr. Borland has been associated with Watson-Standard since 1934 in the technical sales division, specializing in lithographic surface finishes. Prior to that he was with Koppers Co. as operations engineer in both the U. S. and foreign countries.

Metal Deco Conv. Oct. 15-17

National Metal Decorators Association confirmed its annual convention plans for Oct. 15-17, Chalfonte-Haddon Hall Hotel, Atlantic City. The following are members of the convention committee: W. H. Parker, chairman; William Kerlin, G. A. McClain, W. A. Westphal, H. W. Cantwell, R. L. Singley, J. L. Burns and H. W. Lee.

Tin Can Obsolete?

Familiar metal cans, so widely used for food and other products in the U.S., will be "unrecognizable" by present standards within a relatively few years, William C. Stolk, president of the American Can Co., said recently. Even the factories in which the containers are manufactured, (currently at a rate of about 38 billion a year) may eventually undergo similar striking changes, the Canco executive said.

These predictions by Mr. Stolk were made in a talk on "planned obsolescence" at the annual dinner of the Purchasing Agents Association of New York and the Sales Executives

Canco Survey Shows Non-Returnable Container Is Favorite

American families are turning more and more to non-returnable metal containers when purchasing beer and ale for home use. Forty-two per cent of the beer and ale now consumed in urban homes is bought in cans, according to a nationwide survey just released by American Can Company.

The survey also reveals that 54 per cent of the families who drink beer at home make all or part of their purchases of the beverage in the canned form, whereas eight years ago only 15 per cent of the country's home beer drinkers bought the product in cans.

The Canco report covers four nationwide surveys conducted since 1947 on trends in beer consumption in terms of consumers, markets, outlets, size of purchases and types of containers.

Food stores continue as the most important outlets where beer is bought for home use. The survey reports that these outlets accounted for purchases of beer by approximately 50 per cent of urban families. Seventeen per cent of the families bought beer at supermarkets—more than twice the proportion in 1949.

The Canco study shows that the trend toward multiple-unit buying is continuing, with three out of five

families buying canned beer in six-can cartons. The number of families buying six-can cartons has more than doubled in the past five years.

The 16-ounce beer containers (cans and bottles) introduced about two years ago are now purchased by about four per cent of the nation's home beer drinkers.

Home beer consumption, it is reported, increases with family income. Last year, 59 per cent of high income adults drank beer at home as compared to 57 per cent of the middle income groups, and 53 per cent of those in the low income category. The beer consumption survey was made for the American Can Company by the Psychological Corp. of New York.

The study, published as a 26-page booklet with charts and graphs, is sixth of a series released by American Can Co. to portray significant trends in nationwide purchasing of beer for the urban American home. Since the last publication in this series (1952), new sizes of beer containers, 16-ounce particularly, have entered the market. The analysis of family acceptance of these containers is of interest. Also featured for the first time are separate data on three metropolitan markets—New York, Chicago and Los Angeles.

Club of New York, Feb. 14, Hotel Commodore. He defined planned obsolescence as the process of "improving our business by deliberately making obsolete the things we make or use, our processes and techniques and our industrial know-how."

"We have gained so much momentum that I don't hesitate to predict that the metal cans of five years from now will be unrecognizable by today's standards," said Mr. Stolk. "More than that, the cans of tomorrow will be better and more economical, and far more products will be packed in them than ever before."

Mr. Stolk also foresaw the possibility that entirely different production methods, such as welding and the use of plastic cements, eventually may reduce the amount of machinery and the size of can factories as much as one half. The smaller plants, he add-

ed, will be more productive than the present ones.

The \$5 billion currently being invested in research by government and industry is providing the ground work for well over \$30 billion a year in expansion, Mr. Stolk added.

Continental Reaches New High

Continental Can Co., New York, announced Feb. 8 it attained new records in both sales and income for 1955. A preliminary statement was issued by Gen. Lucius D. Clay, chairman of the board. Sales and operating revenues amounted to \$666,266,408 compared with \$616,163,898 in 1954, an increase of 8 per cent.

Net income after providing \$24,100,000 for income taxes, amounted to \$24,172,218, compared with \$20,736,899 in 1954 after providing \$20,200,000 for income taxes that year.

Technical

SECTION

Sensitivity of Bichromated Colloids

By George W. Jorgenson and Michael H. Bruno

ALTHOUGH the phenomenon of light sensitivity of bichromated colloids has been known and used for over a hundred years¹, very little is known of its exact nature and the mechanism that causes the change in solubility of the exposed colloid. The complexity of the reaction between photoreduction products of the bichromate and the colloid has a parallel in leather tanning where the mechanism of bonding between the chromic salts and collagen still is a matter of controversy.

Photochemical Reaction

The bichromate salts of ammonium and the alkali metals are very stable to light by themselves, but they are easily reduced by oxidizable organic materials. The reaction between the bichromates and oxidizable materials (such as proteins and carbohydrates) proceeds in the dark (spontaneously) and its rate depends on the amount of moisture present, the temperature, the hydrogen ion concentration, and the bichromate-colloid ratio. Exposure to light that can be absorbed by the bichromate greatly increases this reaction rate. If the oxidizable material is an organic colloid such as gelatin, albumin, or gum arabic, a change in the physical properties of the colloid takes place. This is usually an increase in viscosity or melting point, a change in dispersibility, or a combination of these.

The areas of a bichromated colloid coating which are exposed to light appear as a dark, reddish brown color. Elder² suggested that this brown color was produced by a chromic chromate- $\text{Cr}_2\text{O}_3 \cdot y\text{CrO}_3$, although he was not certain that the product was a definite chemical compound. Later workers found various ratios of chromic oxide to chromic trioxide. Results of studies at the Lithographic Technical Foundation indicate that the brown color may be due to a simple mixture in the colloid of the green chromic ions, reduced from the bichromate, with the orange unreacted bichromate. Experiments have shown that prolonged washing of bichromated albumin images turned them to a milky, light-blue-green color. These images did not give a positive test for the presence of hexavalent chromium but bichromate was recovered from the wash water. How the chromic ion is bound to the colloid is not known, but since the pH of the dried coating is about 4.5 before exposure, and rises during exposure due to depletion of hydrogen ions, it may be that the chromic ion ends up as colloidal chromic hydroxide to which the colloid is strongly adsorbed.

Considerable information was collected on the photochemical reaction of bichromates by I. H. Mayer³ when in 1909 he measured the effect of light exposures on the electrical con-

ductivity of bichromated films. He used bichromated gelatin on 6 x 9 cm. glass plates. Conductivity measurements were made by charging a condenser through the film and then discharging through a ballistic galvanometer. From his experiments he concluded (1) that the electrical conductivity of the films decreased on exposure to light; (2) that the percentage change of the conductivity caused by light is a characteristic quantity and varies with the age of the plate; (3) that the changes caused by light continued for some time in the dark; (4) that the conductivity increases with rising temperature; and (5) that the temperature coefficient differs for the exposed and unexposed films.

Measurements similar to those of Mayer were made on very thin bichromated albumin films at the Lithographic Technical Foundation. The results of this study are shown in Figure 1. This figure shows a graph of the change in resistance ($\frac{1}{\text{conductivity}}$) of the coating with time, before, during, and after exposure to a white flame carbon arc light. The drop in the resistance during the first five minutes of the exposure is believed due to an increase in temperature of the film from its absorption of heat from the arc lamp. The effect of this increase in

temperature (which lowers the resistance) is greater than the effect of the photochemical reaction (which increases the resistance). There is no break in the curve at the point the arc was turned off: the resistance steadily increased for 10 minutes following the exposure and then levelled off. After this leveling off there was a slight decrease in resistance which continued for 12 minutes before changing again to a very slow rate of increase.

The curve indicates that there are

at least three, and possibly four separate phases in the reaction between the bichromate and albumin (if the initial drop in resistance at the start of the exposure is disregarded).

The first phase (Segment I) is a slow increase in resistance in the dark. This phase usually is called the dark (thermal) reaction. The second phase (Segment II) is the rapid rise in resistance during exposure. This phase is called the *photochemical reaction*. The third phase (Segment III) is the continuing rapid rise in resistance im-

mediately after exposure (with a decrease in temperature). This phase is called the *continuing reaction*. A

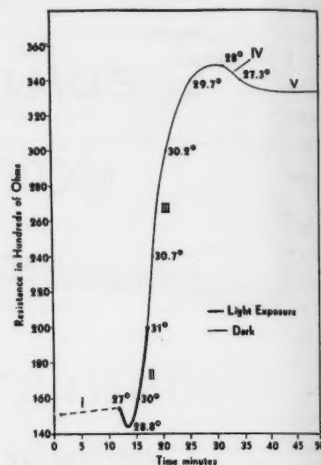
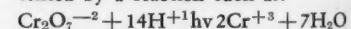


Fig. 1. Change in electrical resistance of a bichromated albumin film before, during, and after exposure to light.

fourth phase (Segment IV) is indicated by the short period of decreasing resistance which follows the continuing reaction. After this phase, the resistance of the bichromated albumin slowly increases due to dark reaction of the remaining unreacted bichromate. (Segment V). This is actually a continuation of the first phase. These four phases constitute a cycle which can be repeated by successive exposures to light on the same coating (the resistance increasing progressively).

Mayer³ proposed that the decrease in conductivity or increase in resistance by exposure to light was due to a large reduction in the number of hydrogen ions. This might be represented by a reaction such as:



The six electrons necessary in this reaction are furnished by the oxidized colloid (the pH of the dried coating usually is in the range of 4.2 to 5.0). The resistance-time curve in Figure 1 suggests that while this reaction might be taking place very slowly in the dark (I) and very rapidly during exposure to light (II), there is another reaction going on immediately after exposure.

This continuing reaction (III) after the exposure might be explained if we assume that (1) more chromic

(Continued on Page 129)

"WHO WORRIES?"

Nobody...

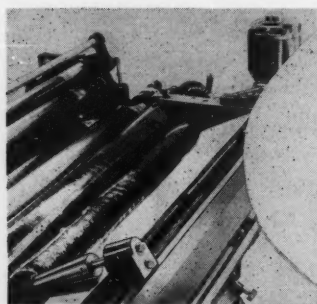
We bought Baldwin Agitators...

"Yes, sir—take it from our customers, my boss and me, we're doing more, better quality work since we installed Baldwin Agitators."

"Neat, compact and engineered to each press, they work out of the way. That patented single rotating cone is easy and quick to clean, really mixes the ink and prevents any skin—force feeds the ink for a uniform flow that makes every sheet good. Powered with its own motor, it keeps working even when the press is shut down for lunch."

"I don't fill the fountain so often either, because the Baldwin doesn't waste ink. It's fine for short runs. I put less ink in the fountain—so we get started faster and spend less time cleaning up."

"One trial installation convinced us, and now we're 100% equipped—small presses and big ones alike. Yes, sir, my boss knew what he was doing when he ordered the Baldwins."



Let us show you how the Baldwin Ink Fountain Agitator can work for you, too. Write for details today, telling us press model, make and size.



WILLIAM GEGENHEIMER CO., INC.

80 ROEBLING ST.

BROOKLYN 11, N. Y.

MANUFACTURERS OF BALDWIN INK FOUNTAIN AGITATORS • BALDWIN VIBRATING ROLLERS
BALDWIN PRESS WASHERS • BALDWIN WATER STOPS • BALDWIN WATER FOUNTAIN LEVELS

ANNOUNCING...



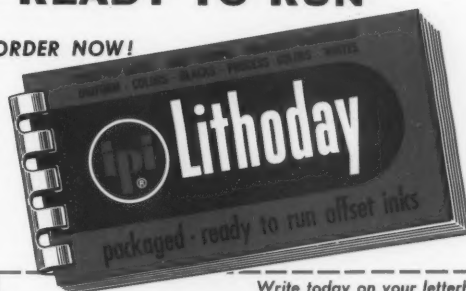
New Lithoday Packaged Offset Inks

PACKED IN CANS—READY TO RUN

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for this handy Lithoday color specimen book.

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67 W. 44th ST., N. Y. 36, N. Y.



Technical

BRIEFS

Abstracts of Current Literature in the Graphic Arts

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LTF also has mimeographed lists of (1) "Periodicals Abstracted by the Research Department" and (2) "Books of Interest to Lithographers." These are available for ten cents each in coin or U. S. stamps. Lithographic Technical Foundation, 1800 S. Prairie Ave., Chicago 16, Ill.

Photography, Tone and Color Correction

*APPARATUS FOR MAKING COMPOSITE FIGURE COLOR SEPARATION NEGATIVES. Robert U. Guthrie. *U. S. Patent 2,721,496. Official Gazette* 699, No. 4, October 25, 1955, p. 597. 1. In apparatus for making composite figure color separation negatives, a turret, a plurality of separate negative carriers positioned at circumferentially spaced places on the turret, means for locking the turret in a plurality of indexed rotative positions to locate the negative carriers accurately, enclosure means for the turret to cover all but one of the negative carriers, resilient sealing means extending between the enclosure means and the turret adjacent the exposed negative carrier, and a pivotally positioned masking member for movement into association with the enclosure means to cover the said one negative carrier and complete the enclosure of the turret.

PHOTOLITHO NOTES. J. S. Mertle. *National Lithographer* 62, No. 9, September, 1955, pp. 44-46 (3 pages). A new material called Druckfilm is described. The material is used to take ink impressions of type matter. The material is an acetate support bearing a thin layer of transparent rubber. The rubber surface is pressed against the type. A short description of the electron printing process is given. The process can be used to make same size reproductions of line drawings.

The formula for a ruling varnish is given. When this material is applied on a glass plate and allowed to dry, sharp, clean lines can be scribed on it. The transparent lines can then be contacted to a press plate. Some of the advantages of a camera flashing lamp are given. Some comments on color terminology are given. Some tips on color separation negatives are given. Some comments on the high cost of newspaper printing by letterpress and the possibility of offset being used in the publication field.

PHOTOLITHO NOTES. J. S. Mertle. *National Lithographer* 62, No. 10, October, 1955, pp. 44-45 (2 pages). A letterguide Scriber has been introduced to produce mechanical lettering and to enlarge, reduce, or slant any of the letters on templates furnished with the device. A pen is described which will dispense glue. Also, a formula for antifogging agent to be added to developer when using old photopaper. Treating studio proof paper with benzotriazole before an exposure will slow down the general darkening of the photoproof. A Johns-Manville product called Colorlith seems promising as a material for table tops where chemicals are used. A combination of a collodion emulsion, still development and a diluted developer will give good line negatives from the most delicate originals and good shadow details in halftone images. A photolitho halftone printing surface can be made on some presensitized plates by placing a 60% tint over a continuous tone negative and contacting to the plate.

PHOTOLITHO NOTES. J. S. Mertle. *National Lithographer* 62, No. 11, November, 1955, pp. 38-39 (2 pages). Ansco has introduced a reflex paper called Scona. The material is used for reflectographic reproduction of originals. Ansco and the Kemart Corp. have developed a fluorescent photopaper for improved halftone reproduction. It is a fluorescing paper support for photographic emulsions. It promotes brilliancy and automatically accentuates highlight effects. A method of producing positive images direct from line originals requiring a color developer and a bleaching step has been patented by Donald Gresham. A method for checking the screen distance of a given cross-line screen is described. The shape of a flash dot will indicate whether the screen distance is too great or too short. An anodized aluminum printing plate called Arnem has been introduced by the British firm, Algraphy Ltd. The use of a plastic such as Cronar, which has good dimensional stability, is suggested for map reproductions. The drawings are made on the plastic and then printed to the press plate.

COLOR STRIPPING, Bernard R. Halpern. *Modern Lithography* 23, No. 10, October, 1955, pp. 46-49, 133, 135 (6 pages). This is a preprint of the first section of a new volume on color stripping, by Bernard Halpern, to be published by LTF. The first section is divided into two parts. To show the importance and relative position of stripping on a color job, the author follows a job through production from the time of copy preparation through the bindery. In part one the author gives a general description of the operations and materials used for copy preparation, layout, process photography and simple stripping. In part two color stripping, proofing, platemaking, press and bindery operations are treated.

Planographic Printing Processes

*SURFACE-PRINTING PLATES. *German Patent* 903,415. Wilhelm Neugebauer and Martha Tomanek. *Chemical Abstracts* 49, No. 13, July 10, 1955, Column 8720. A carrier material, such as an Al plate or foil, is coated with a soln. of an unsatd. sulfone (1) of the general formula $RSO_2(CH_2CH)_2R'$, where R and R' indicate aromatic radicals which can be substituted, then exposed to light according to pattern, treated with dil. acid, and then inked with a fatty pigment.

*IMPROVEMENTS IN OR RELATING TO DIAZOTYPE PRINTING. *British Patent* 473,p44. Hein Israel Waterman and Tjakko Willem Anton Borgesius. *The Aromatic Diazo Compounds*, K. H. Saunders, 2nd edition, Edward Arnold & Co., publishers, (London), 1949, p. 204 (1 page). Extension of British Patent 454,137 using diazotized casein as sensitive coating material. After light exposure, coating is developed with coupling component such as H-acid which reacts with those portions of coating which have not been exposed.

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*METHOD FOR MANUFACTURING IMPROVED PLANOGRAPHIC PRINTING PLATES. U. S. Patent 2,721,815. William G. Mullen. *Official Gazette* 699, No. 4, October 25, 1955, p. 677. 1. In the process of fabricating a paper-base planographic printing plate with two or more superposed hydrophilic colloid coatings, the steps of drying an underlying hydrophilic colloid coating, wetting the surface of the dried coating with water, removing the excess of the aqueous wetting composition, and then applying the colloid coating composition for forming the next coating while the surface of the underlying coating is still wet.

*METHOD FOR THE UNIFORM COATING OF LARGE SURFACES. U. S. Patent 2,721,809 Alvin M. Marks and Mortimer M. Marks. *Official Gazette* 699, No. 4, October 25, 1955, p. 676. 1. The method of coating large vertically disposed areas with light filtering media which consists of the steps of preparing a supply of a viscous solution containing the filtered media, forming a film of said solution on a vertically extending portion of the area, directing a stream of said solution at an area contiguous with said vertical portion and adjacent the upper edge of the surface to be coated, thereafter traversing the upper portion only of the surface with said stream so as to apply, at a rate which will provide a downwardly flowing film having an unbroken leading edge, a quantity of solution thereto in excess of that needed to cover the surface, allowing the solution so applied to flow downwardly across the entire surface in a continuous sheet and there after allowing that portion of the fluid which adhere to the surface to dry thereon.

*PRINCIPLES APPLICABLE TO THE OXIDATION AND CORROSION OF METALS AND ALLOYS. W. W. Semltzer. *Corrosion* 11, 366t-74t (1955); *Chemical Abstracts* 49, No. 20, October 25, 1955 Column 13856. Different models of oxide films have been described which are used to interpret the oxidation characteristics of metals and alloys. Metals are sepd. into groups forming "metal-excess" and "metal-deficit" oxide films and emphasis is placed on the role of lattice defects in governing diffusion of metals through the film to react with the environment. Effects of alloying elements on oxidation rates of metals are discussed in terms of formation of solns. of oxides and intramol. oxides. Special references is made to Al and its alloys. 49 references.

*NICKEL PLATING BY CHEMICAL REDUCTION. U. S. Patent 2,721,814. Hillard J. Jendrzynski and Thomas F. Strapleton. *Official Gazette* 699, No. 4, October 25, 1955, p. 677. 1. A method of depositing nickel from a chemical reduction plating bath, said method comprising immersing a catalytic article to be coated in a solution of nickel ion and a hypophosphite reducing agent capable of reducing the nickel in solution, said solution having a nickel ion concentration of less than about 10 grams per liter, a hypophosphite ion concentration of less than about 25 grams

per liter, a temperature within the range from about 165° F. to 190° F. and an initial pH within the range from about 5.8 to 7.2, and allowing said article to remain in said solution until the nickel is substantially completely reduced as evidenced by the solution turning from green to colorless.

Paper and Ink

*DRYING OF PRINTING INKS: MECHANISM OF DRYING. R. Kirry. *Assoc. tech. ind. papetiere, Bull.* 1955, 71-79; discussion, 79-80; *Chemical Abstracts* 49, No. 19, October 10, 1955, Column 13649. An illustrated lecture dealing mainly with the following methods of ink drying: by penetration of the ink vehicle; evapn. of the solvent; oxidation of the filmogen; thermal polymerization; gel formation; "steam-setting," and "cold-setting." The role of the paper during ink drying is outlined and difficulties encountered in drying that are attributable to the paper are discussed.

*PHYSICAL PROPERTIES OF PAPERS FROM SYNTHETIC FIBERS. James K. Hubbard, Franklin H. Koontz, John R. McCartney and Robt. A. A. Hentschel. *Chemical Abstracts* 49, No. 13, July 10, 1955, Columns 9275-76. Papers have been made from some synthetic fibers (1) such as nylon, Orlon, and Dacron which have outstanding resistance to degradation by strongly corrosive chemicals, molds, bacteria, sunlight, heat and moisture and also show high strength, flex endurance, and abrasion resistance. Besides their unique properties in terms of fold endurance and strength the papers retain the other desirable properties of (1). The methods of bonding and the effect of fiber length on the properties, the dimensional stability to humidity changes, and the strength of sewn seams and heat-sealed joints are discussed. The results show that papers made from (1) represent valuable products for the paper industry, with properties which cannot be obtained with cellulosic papers.

A NEW REPLICA TECHNIQUE FOR MAKING ELECTRON MICROGRAPHS OF SURFACES. Joseph J. Comer, Harold W. Stetson and S. C. Lyons. *TAPPI* 38, No. 10, October, 1955, pp. 620-624 (5 pages). A replica technique which makes possible the electron microscope study of uncoated or coated paper sheets is described. The method consists essentially of preshadowing the paper with platinum, backing the platinum with a film of evaporated carbon, and then dissolving the paper and its coatings. The application of this technique to kaolinite coated papers substantiated the conclusions of Woodward and Lyons that the gloss developed by coatings utilizing the finer fractions of kaolinite is caused by preferred orientation of the particles parallel to the surface of the coating. Papers coated with titanium dioxide, calcium carbonate and zinc oxide were also examined by this technique and each is shown to have a characteristic structure. The method may also be of value in studying ink receptivity of various coating, and in studying adhesives and sizings at the coating surface.

AN ELECTROSTATIC PROCESS FOR APPLYING DRY COATINGS ON PAPER. R. B. Reif. *TAPPI* 38, No. 10, October, 1955, pp. 607-609 (3 pages). An electrostatic process has been developed for coating paper with dry coating materials in powder form. The coating material, suspended as a dust cloud in air, is charged electrically and deposited on the web with strong electrostatic fields. The general design and operation of the coating unit, the nature and processing of the coating materials, and the types of coatings made by the process are described. Many different resins and pigments can be applied by this process to provide a wide variety of properties in the coatings.

STUDY OF PAPER COMPOSITION BY PARALLEL SECTIONING. B. L. Browning and I. H. Isenberg. *TAPPI* 38, No. 10, October, 1955, pp. 602-603 (2 pages). In many technical problems concerned with paper structures and properties, it is desirable to know the distribution of size, filler, and other components through the thickness of the sheet. Similar questions arise in studies of penetration of coatings and tub sizings into the base sheet. For several years, the Institute Laboratories have used a method based on parallel sectioning of the paper followed by analysis of the prepared sections using suitable microtechniques. Typical applications are illustrated in this paper in the belief that they may be of general interest.

*WET STRENGTH PAPER. B. B. Gutman. *Bumazh. Prom.* 29, No. 3, 12-16 (1954); *Chemical Abstracts* 49, No. 19, October 10, 1955, Column 13648. The melamine-formaldehyde resins (1) have been found to adhere to the surface of the fibers more firmly than do the urea-formaldehyde resins. The paper treated with (1) kept wet strength (II) after a prolonged soaking in H₂O and did not suffer a loss in breaking and tearing resistance as did the paper treated with the latter.

Lithography—General

*MOISTENING MECHANISM FOR OFFSET DUPLICATING MACHINES. U. S. Patent 2,721,515. Veljko Milenkovic. *Official Gazette* 699, No. 4, October 25, 1955, p. 602. 1. A planographic plate dampening device comprising a moisture form roll mounted for intermittent rolling contact with a plate, a rider roll mounted for normally continuous rolling contact with said moisture form roll, a moisture fountain, a fountain roll having portions in relief spaced about the periphery thereof and being of different lengths measured axially of the roll, means for continuously rotating said fountain roll, a ductor roll mounted for swinging movement between said fountain roll and said rider roll, means for selectively adjusting said fountain roll circumferentially with respect to its drive so that a predetermined selected portion of its periphery is presented to said ductor roll during the cycle, and compound cam means adapted to maintain said ductor roll in rolling contact with said rider roll a fixed period if any one
(Continued on Page 139)

Litho Club

NEWS



Connecticut Valley Litho Club heard a discussion of air conditioning and also installed officers at its Feb. 3 meeting. J. R. Lewis (left photo) of Walton Laboratories, Irvington, N. J., spoke on conditioning air to protect offset production. In center photo are the new 1956 officers, l. to r.; Robert Tangarone, Travelers Insurance Co., treasurer; Herb

Bauer, Connecticut Printers, president; Andrew Pagliaro, Holyoke Litho, 2nd vice president; and Thomas Murice, Bond Press, secretary. David Gandleman, City Printers, who was elected 1st vice president, was not at the meeting. Frank Holloway (l.) outgoing president, congratulates new president Herb Bauer, and presents gavel of office.

Conn. Valley

Club Installs New Officers

"The Importance of Humidification for the Graphic Arts & Paper Craftsmen" was discussed by Mr. J. R. Lewis, Walton Laboratories, Irvington, N.J. at Connecticut Valley Litho Club's annual election meeting Feb. 3, Hotel Bond, Hartford. Mr. Lewis covered definitions for all types of air conditioning in lithographic plants, and included budget cost figures for initial investment and operating expenses.

New officers of the club, installed at the meeting are: president—Herb Bauer, Connecticut Printers, Hartford; 1st vice-president—David Gandleman, City Printers, New Hav-

en; 2nd vice-president—Andy Pagliaro, Holyoke Litho., Holyoke, Mass.; treasurer—Robert Tangarone, The Travelers Insurance Co., Hartford; and secretary—Thomas Murice, The Bond Press, Hartford.

New members of the board of governors are: Frank Yuskovich, Davidson-McKirdy; Silvio Damato, City Printing Co.; and Elmer Grover, Connecticut Printers.

March 17 is Ladies Night and the party will be held at Lou Duncans in Meriden, Conn. Dinner, floor show, dancing and door prizes will be included. Recalling the overflow crowd at the last Ladies Night, the committee has specified that all reservations must be made and paid for three days in advance of the event.

Canton

Color Demonstration & Lecture

The largest attendance in the history of the Canton Litho Club turned

out for the February meeting and an interesting lecture and demonstration on "Color, What It Is And What It Does." G. L. Erickson, executive vice president, Braden Sutphin Ink Co., was guest speaker.

Washington

11 New Members Join Club

Washington Litho Club's Board of Governors elected the following to active and associate memberships at the February meeting: Active—Frank J. Clifla, U. S. Geological Survey and Cpt. Elmer H. Schulte, U.S. Army, Ft. Belvoir, Ga. Associate—C. Erle Kline, Jr., Richard A. Kline, Ralph V. Higdon and Mark D. Rorick, all of Capitol Printing Ink Co.; Joseph O. Morrison and C. Fred Kohler, Lanman Offset; Hugh C. Smith, North-Strong Corp.; Hale Hamilton, Michle Printing Press & Mfg. Co. and W. B. Henaghan, Ralph C. Coxhead Corp.

Edward M. Whiting, Jr., Di-Noc Chemical Arts, Inc., has been named associate member of the board of governors to fill the vacancy caused by the death of Jack E. Rieben.

It was announced that the Club will conduct its 2nd annual oyster roast March 10 at Moose Lodge, College Park, Md. Tickets are \$3.50 per person and reservations and checks should be mailed to Fred A. Fowler, 2204 Good Hope Rd., S.E. Washington, D. C.

At the Club's Feb. 28 meeting Arthur J. Richter, color separator expert and W. D. Tuck, sales representative for the Dayton Rubber Co., presented a film and talk on "Split Color Production in Modern Lithography."

Milwaukee

Abramson Is Guest Speaker

Ervin R. Abramson, president, Ervin R. Abramson Advertising, Inc., spoke on "Lithography in Advertising" at the Milwaukee Litho Club's dinner meeting Feb. 28 at Hotel Ambassador. It was announced that the ninth annual bowling meet between the Milwaukee and Chicago Litho Clubs will be held March 24 at the Elks Club, Milwaukee, followed by a dinner and entertainment. Ben Steib is in charge of reservations.

The Club recently honored Chester A. Scheidler, Sleight-Hellmuth Co., for his loyal support of the Club in the past and present. He was awarded a statuette of A. Senefelder.

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Boston

Ladies Feted by Club At Valentine Dinner Dance

Boston Litho Club conducted its annual Ladies' Night dinner dance Feb. 11 at Sherry Biltmore Hotel, Boston, with 281 persons attending. Club president James F. Beldotti was host. Music was provided by the Karle Rohde Orchestra.

The March 5 dinner meeting of the club at the Sherry Biltmore Hotel was devoted to the topic "Leading Ink Manufacturers Provide The Answers." Representatives of the ink manufacturing industry were on hand to answer questions.

Attending the Boston Litho Club Annual Ladies' Night Valentine dinner dance l. to r., Maurice Blacker, president, Hub Offset Co. and member of board of directors of BLC; Mrs. Blacker; James F. Beldotti, Rand Avery-Gordon Taylor, Inc., Boston, president; Mrs. Beldotti; Albert Richards, Jr., Recording & Statistical Corp., Boston, program chairman and Club first vice president, and Mrs. Richards.

The following schedule of events has been released by the club: April 16, joint meeting with the Boston Club of Printing House Craftsmen, Hotel Kenmore; May 7, Club meeting at Hotel Sherry Biltmore, discussion by offset plate manufacturers and chemists, annual election of officers for the 1956-57 term.

Richard O. Page, Sullivan Bros., Lowell, Mass., is in charge of the annual joint meeting of the Boston Litho Club and Boston Club of Printing House Craftsmen.

and Richard Kundgren, Olsen Photo Supply Co. A. T. Murfin, Consolidated, gave an explanation prior to the showing.

It was announced that a fishing party will be held June 9-10 at Mille Lacs Lake and quarters will be provided at Hartwig's Resort, Isle, Minn. It was decided that the annual Christmas party will be held in the Calhoun Beach Club Hotel.



Three new members initiated into Twin City Litho Club are, l. to r., Henry Larson and Pat White, Flour City Press, Minneapolis, active members, and John Gawlick, Roberts & Porter Co., associate member.

Baltimore

Rollers Discussed At Meeting

James T. Keating, manager, Bingham Brothers Co., Baltimore, was guest speaker at the monthly meeting of the Baltimore Litho Club Feb. 20 at Munder's Lauraville House, Baltimore.

The program "Rollers Today and Tomorrow" was a review of litho press rollers, both inking and dampening. Mr. Keating's talk was augmented by a film covering the progressive steps in the manufacture of composition coating rollers and the covering of dampening rollers. Carroll Weber showed a personal movie he took at the National Metal Decorators Association convention, last October.

St. Louis

Past Presidents Honored

The 12 past presidents of St. Louis Litho Club were honored by members, wives and friends at a dinner meeting Feb. 2 at the York Hotel.

Walter Blattenberger, Western Printing & Litho Co., Club president, reviewed the history of the St. Louis Litho Club, which began in 1933 but was officially organized with officers in 1944. From a membership of six in 1933 to the present total of 56, the Club is representative of the lithographic industry in St. Louis.

Presentations of statues of Alois Senefelder were made to the following past presidents: Al Renda, Kohl & Madden Printing Ink Corp.; Oliver Schuermann, Hellmuth Printing Ink Corp.; George Langenohl, Nies-Kaiser Printing Co.; Harold Rohne, Letterhead & Check Corp.; William Pelster, Eden Publishing House; Frank Lederle, Missouri Printing & Engraving Co.; Fred Francis, Comfort Printing Co.; Howard Phillips, Con P. Curran Printing Co.; Raymond Benz, Hallenberg Press and Al Boes, Mendel Printing Co.

Rex Howard, president, Howard Lithographing Co., Peoria, Ill., was guest speaker. The NAPL president discussed "One For All in Lithography."

Philadelphia

Annual Quiz Night

QUIZ night was the attraction that drew 178 members and guests to the Litho Club meeting Feb. 27 in the Poor Richard Club. Only a few weeks before, on Feb. 11, a large number of couples enjoyed the annual Ladies Night program in the Benjamin Franklin Hotel, at which Joseph H. Winterburg was awarded a Senefelder bust.

Once again vice president Stephen Rubenstein, Colorcraft Lithoplate Co., acted as quiz master for a panel of five experts from the Philadelphia area. Fred C. Kahoun, McCandlish Division, U. S. Printing & Lithographing Co., handled camera; Bernard Halpern, graphic arts consultant and author, stripping; Martin Casulli, Majestic Press, plates; John T. Hughes, Valley Forge plant, Container Corporation of America, press; Morris Garrick, McCutcheon Bros. & Quality, ink; and Richard S. Kelly, Thomas W. Price Co., paper.

Some typical questions and the panel's answers follow:

Q: How long should it take to make-ready a 35 x 45" two-color press?

Hughes: About three hours from plates to press (½ hr. mechanical setup, another hour for each unit of color).

Q: How can I combine a halftone with a tint and line shot?

Halpern: Many ways. Among them, double printing, printing halftone on sensitized film, and combining on photo-composer.

Left: Mr. and Mrs. Joseph Winterburg proudly display Senefelder bust he was awarded for long service as secretary of the Philadelphia Litho Club. Award was made at Ladies Night. **Right:** Quiz Panelists at Feb. 27 meeting. From left: Halpern, Kelly, Rubenstein, Garrick, Casulli, Hughes and Kahoun.



Q: Can presensitized plates be used for proofing if the job will be run deep etch on zinc or aluminum?

Casulli: Decision must be governed by the grain of the plates. Grainless plates (such as most presensitized) will reproduce almost everything on the negative.

Q: Difference between magenta and contact screen?

Kahoun: Contact screen is made of film in magenta color (or gray, if shooting color through it). Magenta screen with filters offers good control. For black and white work, contact screen is superior to a glass screen.

Q: What causes offset ink to emulsify in spare forms?

Garrick: Certain pigments have more tendency to emulsify, because they are more soluble in litho solutions. A water repellent varnish often is the answer to emulsification. About two-three oz. varnish to a pound of ink, depending on strength of the color.

Q: Ideal pH of paper surface for good ink drying?

Kelly: From 4½ to 5 for both coated and uncoated stock.

Q: Advantage of adding silicones to litho inks?

Garrick: Act as defoamers or anti-foam agents, but they are not compatible with water systems (in fact they have been used as water repellents).

Q: How many multi-metal plates are available?

Casulli: Aller, IPI and PDI.

Q: Which masking method is best for color correction of transparencies?

Kahoun: Contact is most common; some use magenta.

Q: Should changing blanket in mid job affect register?

Hughes: Not if press adjustments (pressures) are in balance.

Q: Has strip film been used successfully on vinyl?

Halpern: Not very successfully. Need

Litho Club Guide

BALTIMORE

Norwood A. Hesselbach, Secy.
Interchemical Corp.
720 East Pratt St., Baltimore 2, Md.

BOSTON

Thomas J. Cain, Secy.
Hub Offset Co.
175 Purchase St., Boston 10

BUFFALO

Vic Reisch, Secy.
33 Eiseaman Ave., Kenmore 17, N. Y.

CANTON, Ohio

Jack R. Reinart, Secy.
1012 Maryland Ave., S.W., Canton

CHICAGO

Fred L. Faulkner, Secy.
Chief Printing Co.

CINCINNATI

Peter Schannes, Secy.
Mail-Way Advertising Co.
229 East Sixth St.
Cincinnati 2, Ohio

CLEVELAND

Russell B. Waddell
Harris-Seybold Co.
5308 Blanche Ave.
Cleveland, O.

CONNECTICUT VALLEY

Charles H. Waterhouse, Secy.
27 Van Ness St., Springfield, Mass.

DALLAS

L. J. Reynolds
6306 Latta St., Dallas, Tex

DAYTON

Richard Clark, Secy.
740 Vine St., Piqua, O.

DETROIT

John Murphy, Secy.
13100 Santa Rosa, Detroit

HOUSTON

Chloe Lee Mallet
2104 Wichita, Houston 4, Tex.

MILWAUKEE

Allan N. Williams, Secy.
4463 N. Morris Blvd., Milwaukee 11, Wis.

NEW YORK

Tom Cavallero
Schleuel Litho. Corp.
2nd Ave. & 22nd St., New York

ONTARIO

The Secretary, Ontario Litho Club
c/o The Canadian Lithographers Ass'n., Inc.
4 Wellington St., E., Toronto, Ont.

PHILADELPHIA

Joseph Winterburg, Secy.
622 Race Street, Philadelphia 6
Meets 4th Monday, Poor Richard Club

QUEBEC

John Martin, Secy.
Gazette Printing Co., Ltd.
1000 St. Antoine St., Montreal, Canada

ROCHESTER

Roy Blones, Secy.
87 Pleasant Ave., Rochester 22, N. Y.

ST. LOUIS

Eugene J. Hanson, Jr., Sec'y.
4440 Bessie Ave., St. Louis 15, Mo.

TWIN CITY

Martin Haenze, Secretary
1405 Chicago Ave.,
Minneapolis 4, Minn.

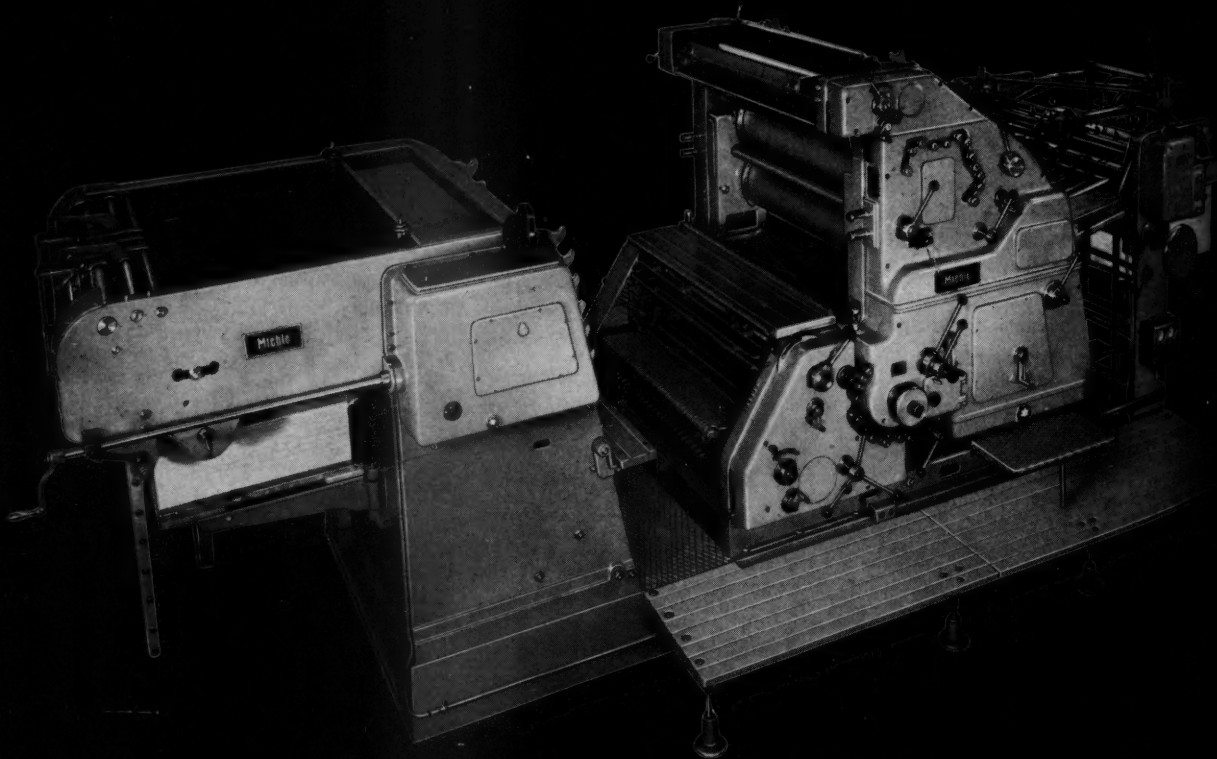
WASHINGTON

H. Thas, Driver, Secy.
PO Box 952, Benj. Franklin Sta.
Washington, D. C.
Meets 4th Tuesday

NAT'L ASS'N OF LITHO CLUBS

Elton N. Baker
9134 Oak Park Ave., Morton Grove, Ill.

The Miehle



Miehle 38, 41, and 49 Offsets are being installed in lithographic and combination plants in ever increasing numbers. In a remarkably short time, these offsets have established a record and reputation that is unsurpassed—they are the accepted standard of medium sized offset equipment.

*Performance
is the reason...*

Throughout the Country It's...

Miehle

38, 41 and 49 OFFSETS

The following list is representative of the many outstanding plants from coast to coast which now operate Miehle 38, 41 or 49 Single and Two-Color Offset Presses.

Abbott, Kerns & Bell Company
Portland, Oreg.

Allen's Litho, Trade Plant
Atlanta, Ga.

Augsburg Publ. House, Inc.
Minneapolis, Minn.

The James H. Barry Company
San Francisco, Calif.

Buck Printing Company, Inc.
Boston, Mass.

Rufus H. Darby Prtg. Co., Inc.
Washington, D. C.

The Gibson Art Company
Cincinnati, Ohio

The Inland Press
Detroit, Mich.

D. F. Keller Company
Chicago, Ill.

Label Service Corporation
Chicago, Ill.

LaSalle Litho. Corporation
New York, N. Y.

Masura Offset Company
Dearborn, Mich.

Newsfoto Publishing Company
San Angelo, Tex.

Poertner Lithographing Company
Denver, Colo.

Standard Litho. Company, Inc.
Los Angeles, Calif.

Standard Prtg. & Litho., Inc.
Tulsa, Okla.

Max Stern's Sons Company
Chicago, Ill.

The John B. Watkins Company
New York, N. Y.

Weber Litho. Company
Chicago, Ill.

Williams & Marcus Co., Inc.
Philadelphia, Pa.

Winston Printing Company, Inc.
Winston-Salem, N. C.

Write for complete information

**MEHLE PRINTING PRESS AND
MANUFACTURING COMPANY**

Chicago 8, Illinois

an additive to the cement to make it hold.

Q: Will caustic treatment to surface of board raise pH and if so, will it improve drying?

Kelly: Will raise pH but will interfere with drying.

Q: Can I make small typo corrections on a press plate?

Casulli: Often it's best to make the plate over. But corrections can be made with engravers needle, if used with caution. Sometimes a good hard pencil will do the trick, but it takes a little artistic ability. Brass needle better than steel. Good lacquer on area first, helps. *Halpern.* Another way, for surface plates, is to have a negative made of the word to be changed, remove old image, sensitize area and expose new image.

Q: Why do blankets sink, repack and sink again?

Hughes: Pressures aren't balanced. For instance, if you have four thousandths squeeze on back cylinder and two thousandths on blanket, the press is out of balance. If the pressures are balanced, the blanket shouldn't sink. (*A. D. Kirkpatrick, Gurin-Rapport Co.,* added, from the floor, that blanket manufacturers have been changing the formulation of their blankets to meet the changes that have taken place in inks. Using the right blanket for the job will eliminate a lot of trouble.)

Q: How does paper plant coat a sheet of paper?

Kelly: Some mills coat base stock, some start with wood pulp. Machine coated is done in one operation, brush coated in two, hence the latter usually carries more coating. Coated paper is not always more expensive than uncoated because the coating is much easier to dry in many cases.

Q: Short cuts for stripping in book work?

Halpern: Peg board method; vinyl or acetate sheet with blue lines ruled on.

Q: Cause of soft edges on halftone dots?

Kahoun: Wrong camera adjustments, excessive contrast; defective chemicals.

Q: What is scumming, greasing, tinting?

Hughes: Scumming—non-image area takes ink in one or more isolated places (caused by plate, form rollers, pH of water fountain, dirty dampeners and many other things). Greasing—non-image area takes ink close to the image (halftones fill, solids creep) over whole plate area (caused by ink, water or dampeners). Tinting—uniform haze of ink deposited over entire area of the plate. (Similar causes). *Casulli:* Post-Nital treatment often helps correct these troubles.

Q: How can I overcome summer difficulties other than with air-conditioning?

Casulli: Desensitize plates properly before coating, increase thickness of the plate. (*Walter Kaiser, Edward Stern & Co.,*

(Continued on Page 133)

New York

Club Views Ink Makers Film

New York Litho Club held its monthly dinner meeting Feb. 29 at the Brass Rail, New York. A film by the National Association of Printing Ink Makers was shown, followed by a panel-discussion period featuring representatives from the ink, roller and paper field.

Herbert Livesey, NAPIM secretary, presented a background of the ink industry and classified it as a chemical industry, one which produces a million new ink formulas every year. Panel members included Vincent De Forge, Interchemical Corp., Richard Scott, Sinclair & Valentine Co., and Frederick J. Dankert, Howard Flint Ink Co. They covered the various factors affecting ink quality.

The National Printing Ink Research Institute is working to find out what actually happens in surface chemical reactions in lithography.

March 29 is the date for the next meeting of the New York Litho Club, a joint affair with the New York Craftsmen.

Dallas

Members Tour Publishing Co.

The February meeting of the Dallas Litho Club was highlighted by a tour of Taylor Publishing Co., Dallas, supervised by H. C. Taylor, president, and Raymond Roberts, superintendent.

Mr. Taylor and Mr. Roberts spoke to the Club on the publication of yearbooks. The Taylor plant is handling more than 4,000 orders for yearbooks this year. Plant camera operators have equipment to shoot more than 600 halftone exposures during the two 10-hour shifts.

Six new members admitted to the club are: R. J. Ewalt, Egan Co.; Earl Mester, Otis Pressure Co.; William Jarvis, Jarvis Press; Albert Frame, Frame Litho Co.; Ray Payne, Egan Co. and William Huddleston.

Fifteen members of the Buckner's Orphans' Home printing department

(Continued on Page 143)



BETTMAN ARCHIVE

in the modern
shop, it's



ANSCO Reprolith Film

(ORTHO AND PAN)

AnSCO Reprolith Ortho Film delivers the goods on high contrast and full ortho sensitivity. Makes better copies of your line and halftone originals, in black-and-white or color. With this versatile film, you can use filters to improve copy rendition, cut down on negative handwork.

AnSCO Reprolith Pan combines full pan sensitivity with high speed and contrast. Ideal for direct halftone and line separations from color originals.

For maximum density and contrast, use *AnSCO Reprodol Developer*. Really fast . . . available in units making 5, 10 and 25 gallons of solution. AnSCO, Binghamton, New York. A Division of General Aniline & Film Corporation. "From Research to Reality."

ANSCO...

graphically the finest since 1842

News

ABOUT THE TRADE

Miehle Acquires Dexter

Miehle Printing Press & Mfg. Co., Chicago, announced Feb. 23 that it will purchase the remaining 50 per cent of the outstanding stock of the Dexter Folder Co. for approximately \$2,900,000. Miehle has owned 50 per cent of the Dexter stock for many years.

In connection with the purchase, Miehle offered 267,856 shares of its class A non-voting common stock at \$24 per share. This was the first time Miehle stock has been made available to the general public. An underwriting group headed by Smith, Barney & Co., New York, made the offering.

The Miehle-Dexter combination will be one of the largest manufacturers of graphic arts equipment. It offers a complete line of sheet-fed presses, both letterpress and offset, as well as bindery equipment and special machinery. It is also active in fields outside the graphic arts industry.

Hankel Expands Plant

Hankel Printing Co., Chicago, last month completed transfer of its offset department from 161 W. Harrison St. to the main plant at 314 W. Superior St. Additional space has been leased at the Superior St. location to provide four floors of offset and letterpress operations.

Complete air conditioning facilities have been installed, as well as a Harris 2-color and a Webendorfer single color offset press. Allen A. Wright, a former advertising display manager for Kraft Foods Co., has been appointed sales promotion manager.

World Paper Demand to Reach 65 Million Tons Says Tinker

A world market for paper and board products of 65 million tons in another year or two was forecast last month by E. W. Tinker, executive secretary of the American Paper and Pulp Association, at the Association's 79th annual convention, Waldorf Astoria Hotel, New York. The APPA meeting, and the Technical Association of the Pulp and Paper Industry convention held concurrently at the Commodore Hotel, brought thousands of registrants from all parts of the world to Paper Week in New York, Feb. 20-24.

Speaking before the Cover and Text Paper Group of the Writing Paper Manufacturers Association, Mr. Tinker detailed the results of a new per capita consumption study just made by APPA. World consumption of paper and board is now at an all time high of 62 million tons. North America, Europe and Australia, with only 29 percent of the world's population, produce 92 percent and consume 88 percent of the world's paper and board. The 784,000,000 people in these areas consume an average of 132.5 pounds of paper and board per capita in a year. The rest of the world, excluding Russia, with a population of 1,822,000,000, consumes only 6.2 pounds per capita a year.

In less than 20 years, Mr. Tinker pointed out, consumption of paper and board in North America, Europe and Australia has risen from 86.5 to 132.5 pounds per capita per year.

At APPA's "Industry Speaks" luncheon, Feb. 23, paper industry

leaders were heard, with J. R. Kimberly, president and chairman of the board, Kimberly-Clark Corp. presiding. Donald S. Leslie, president of Hammermill Paper Co. and the Association, gave the annual report on the state of the industry; Allen Abrams, director, Marathon Corp., discussed industry's stake in research; E. J. Gayner III, president, Brunswick Pulp and Paper Co., presented a report on current trends in the timber resources conservation program; and George Olmstead, Jr., president, S. D. Warren, Co., discussed community relations in the paper and pulp industry.

G. E. O'Connor, Mohawk Paper Mills, Inc., was elected president of the Writing Paper Manufacturers Assoc.; Nelson Bridgham, Strathmore Paper Co., was re-elected vice president and chairman of the Rag Content Paper Group; and Harold Holden, Eastern Corp., was re-elected vice president and chairman of the Sulphite Bond Group. Also elected during the Paper Week activities was J. H. Duntton, W. C. Hamilton & Sons, as chairman of the Cover and Text Paper Group of the Writing Paper Manufacturers Assoc.

TAPPI, at its 41st annual meeting, re-elected Karl O. Elderkin, Bowatzers Southern Paper Corp., as president. Ward D. Harrison, Riegel Paper Corp. was re-elected vice president. TAPPI individual membership reached 7,225, it was reported by R. G. MacDonald, secretary of the Association.

Among papers presented to the technical group were: "Modern Paper

Cutting," by R. I. Haywood, Harris-Seybold Co.; "The Composition, Manufacture, and Use of Flexographic Inks," by F. A. Hamel, Jr., Bensing Bros. & Deeney; and "Board Quality Demands for the Lithographic Process," by A. W. Chapman, Lord Baltimore Press.

Institute Meets Sept. 10-12

The 18th Annual Forum of the Packaging Institute will be held Sept. 10-12 at Hotel Statler, Cleveland. John C. Clay has been named program chairman for the forum. It was also announced that L. H. Zahn, Ciba Pharmaceutical Products, was recently elected vice chairman of the technical operations committee, which arranges technical seminars at the Institute's forums.

Continental Eyes Development

R. L. Perin, executive vice president, Continental Can Co.'s metal division, announced Feb. 22 that the

firm has made arrangements with Southern Pacific Co. to acquire about 40 acres of industrial property in San Leandro, Cal., for future development.

Mr. Perin explained that the San Leandro property will make possible future expansion of facilities for manufacture of metal containers. Definite plans will be forthcoming for construction of new facilities which is expected to commence in 1957.

New Incorporations

Royal Lithographers, Inc., New York City, has been granted charter of incorporation listing capital stock of 200 shares no par value.

J & D Lithographers, Inc., Buffalo, has been granted charter of incorporation listing capital stock of 200 shares no par value.

Murray L. Konecky Corp., New York City, has been granted charter of incorporation listing capital stock of 200 shares no par value.

The Lithographed Lone Ranger

This lifelike, die cut of the Lone Ranger is a floor display which was reproduced from a full color paint-



ing for General Mills. Lithographed in color, mounted and easled, the display was produced by the Forbes Lithograph Mfg. Co., Boston.

Inter-Society Color Council Meets April 5-6 in New York

"Color Problems in the Graphic Arts" is the general theme for the 25th anniversary meeting of the Inter-Society Color Council to be held April 5-6, at the Statler Hotel, New York. Norman Macbeth, Macbeth Corp., Council treasurer, has been named program chairman. Reports of the delegates from the 23 member bodies and various committees will be given at a business session April 5. The following papers will be presented at other sessions of the meeting:

"Color Printing Methods in the Graphic Arts," Dr. Marvin Rogers, R. R. Donnelley & Sons, Co.; "Tone Reproduction in Graphic Arts Processes," Warren L. Rhodes, Rochester Institute of Technology; "Color Correction by Photographic Masking," Dr. Walter Clark, Eastman Kodak Co.; "Applications of Scanning Methods to the Graphic Arts," Vincent C. Hall and Joseph G. Gordan, Time, Inc.; "Outlines of Color Problems in the Press Room," Gordon Dalsemer, Lord Baltimore Press; "Paper Controls in Graphic Arts," John L. Kroneberg, S. D. Warren Co.; "Color Matching and Control of Printing Inks," C. R. Conquergood, Canada Printing Ink Co.; "Printing Controls at the Press," Daniel Smith, Interchemical Corp.; "Use of Color Systems in the Graphic Arts,"

Carl E. Foss, Roslyn, N. Y.; "Lighting for Color Control and Visual Color Appraisals in the Graphic Arts," Warren B. Reese, Macbeth Corp.; "The Role of the Publisher in the Color Problem," F. E. Church, Time, Inc.; "The Role of the Art Director," Albert Kner, Container Corp.

EXHIBIT:

1. Examples of printing and lithography—all major printing methods represented—special exhibit of colorful packages.
2. Fluorescent papers.
3. Color aptitude and color blindness tests.
4. Recording spectrophotometers.
5. Densitometers.
6. Colorimeters.
7. Viscosity Controls.
8. Scanner equipment.
9. Viewers & lighting methods for opaque copy.
10. Color matching booths.
11. Standard color systems.
12. Print registry controls.
13. Transparency viewers.

An exhibit at the meeting will show and demonstrate equipment. Following the banquet April 6, Ralph M. Evans will discuss problems in the Graphic Arts and present his new paper entitled "Reproduction of Color Photographs."

Edgar Appointed Chairman



Robert M. Edgar, president, Neyhart Printing Co., Pittsburgh, has been appointed to succeed Floyd C. Larson, director of the U. S. Navy Printing Office, Great Lakes, Ill., as International Printing Week chairman for the next two years.

Mr. Edgar was appointed to the two year term by A. R. Tommasini, president, International Association of Printing House Craftsmen, at the Association's mid-winter board meeting.

Gutwein to Address Craftsmen

William Gutwein, chairman, supervisory training committee, International Association of Printing House Craftsmen, will address Chicago Craftsmen, March 20.

Willis Appointed By Lawson Co.



James Willis, E. P. Lawson Co., New York, recently was appointed Midwest manager of the firm, according to an announcement by D. W. Schulkind, president. Mr. Willis will make his headquarters at Lawson's Chicago office.

TAPPI Coating Conference Set for Philadelphia

The tentative program for the seventh TAPPI Coating Conference was announced recently by John C. Rice, Lowe Paper Co., Ridgefield, N.J., conference publicity chairman. The conference will be held at Hotel Benjamin Franklin, Philadelphia. Theme for the affair will be "Synthetic Adhesives for Paper Coating." The program follows:

May 7: "A report on the study of the flow properties of coating mixes" by J. F. Gorham and R. C. Chase, University of Maine; "A survey of machine coating methods" by G. L. Booth, Black-Clawson Co., Inc., Dilts Machine Works Division, Fulton, N.Y.; "Principles of adhesion of macromolecules" by H. F. Mark, Polytechnic Institute of Brooklyn; "New starch products in coating adhesives" by R. W. Bond and D. E. Lucas, Corn Products Refining Co., Argo, Ill.; "Enhancement of casein for paper coating" by H. K. Salzberg and L. E. Georgevist, The Borden Co., Bainbridge, N.Y.; "A new product for the insolubilization of starch films" by J. R. Belche, Jr., and G. K. Cleek, Allied Chemical & Dye Corp., Hopewell, Va.; "Viscosity control of paper coating adhesives with urea" by Mr. Belche and G. C. Ellis, Allied Chemical & Dye Corp.; "The use of a triazone resin for producing water resistant starchclay coatings" by R. J. O'Brien, E. I. du Pont de Nemours & Co., Wilmington, Del.

May 8: "Emulsion polymers for the paper industry" by Leonard Shapiro, The Borden Co., Chemical Div., Peabody, Mass.; "The effect of latex variables on the properties of coated paper" by D. A. Taber, The Dow Chemical Co., Midland, Mich.; "Mechanism of emulsion polymerization" by J. F. Vitkuske, J. W. Vanderhoff, E. B. Bradford and Turner Alfrey, Dow Chemical; "Rheological properties of latex coating colors" by L. H. Silvernail and R. G. Jahn, Dow; "Latex emulsion paint technology applied to paper coatings" by J. P. Talley, J. P. Davis and R. E. Benton, Goodyear Tire & Rubber Co., Akron, Ohio; "Acrylic emulsion bind-

ers in paperboard coatings" by P. J. McLaughlin and F. L. Schuker, Rohm & Haas Co., Philadelphia.

Official luncheon: Speaker, Norman F. Greenway, senior vice president, Robert Gair Co., Inc., New York.

"Polyamide resins for paper coatings and adhesives" by W. S. Mitchell, General Mills, Inc., Minneapolis; "Acrylic emulsions in greaseproof coatings" by A. D. Jordan, Jr., Rohm & Haas; "On-machine greaseproof coatings with polyvinyl acetate emulsion" by C. P. Argana, E. I. du Pont de Nemours & Co.;

Panel discussion: Theme—"What the Paper Coating Industry Desires in Synthetic Adhesives." Moderator, F. H. Frost, S. D. Warren Co., Cumberland Mills, Me. Included on the panel will be H. M. Annis, Oxford Paper, Rumford, Me., with key industry representatives of various resin and latex suppliers drawn from authors of papers presented during earlier sessions.

May 9: "Practical reasons for using synthetic resins in paperboard coatings" by C. T. Brady, St. Regis Paper Co., Deferiet, N.Y.; "Desirable characteristics in folding boxboard from the converter's standpoint" by F. P. Alcorno, Lord Baltimore Press, Baltimore; "Correlation between printing and physical properties of paperboard" by Jacqueline M. Fetsko, National Printing Ink Research Institute, Lehigh University, Bethlehem, Pa.; "New printability evaluation technique" by G. A. Murdock and D. L. Shinn, Crown Zellerbach Corp., Camas, Wash.; "Coating adhesive demand as affected by pigment properties" by R. M. Karapetoff Cobb, technical advisor, Lowe Paper Co.; "Further electron microscope studies of coating surface structure by the pre-shadowed replica technique" by Joseph Comer and Harold Stetson, Pennsylvania State University, University Park, Pa., and S. C. Lyons, Georgia Kaolin Co., Dry Branch, Ga.

Plant visits to local paper mills and printing plants.

May 10: Conducted tours will be available to the Hercules Powder Co. Experiment Station, Wilmington, Del., and the new du Pont Polychemicals Dept. laboratory, Chestnut Run.



Alan A. McNab Everett L. Mills

Flint Ink Names McNab, Mills

Alan A. McNab, Howard Flint Ink Co., Detroit, has been elected vice president in charge of sales, according to an announcement Feb. 11 by the directors. At the same time Everett L. Mills was named sales manager of the firm, succeeding Mr. McNab.

Mr. McNab was sales manager for Flint for the past 30 years. Mr. Mills formerly managed Flint factories in Atlanta and New Orleans and has been Mr. McNab's assistant for the past five years.

Ed Fountaine Joins Chemco

Chemco Photoproducts Co., Inc., Glen Cove, New York, recently announced that Edmund O. Fountaine has joined the sales organization of its New York branch. He will specialize in the sale of litho products. For the past two years he was with the Sun Chemical Corp. in metropolitan New York and Connecticut. Prior to that he was with Harris-Seybold Co. in the New England area.

Miller & Connelly Form Co.

Chester I. Miller, vice president, W. Oliver Tripp Co., Boston, recently resigned his post there to form his own corporation, Mail Delivery Service, Inc. of Massachusetts. He is in partnership with Edward J. Connelly, who was formerly with Koppel Photoengraving Co., New Haven.

Mr. Miller, a veteran of 33 years in the graphic arts industry, will have his headquarters in Boston. Mr. Connelly will be located in New Haven.

Hohenthanner Dies In St. Paul

Royal C. Hohenthanner, Midwestern divisional sales manager, G. Cramer Dry Plate Co., died in Miller Hospital, St. Paul, on Jan. 6. He was 49 years old. Mr. Hohenthanner joined the Cramer Co. in 1937.

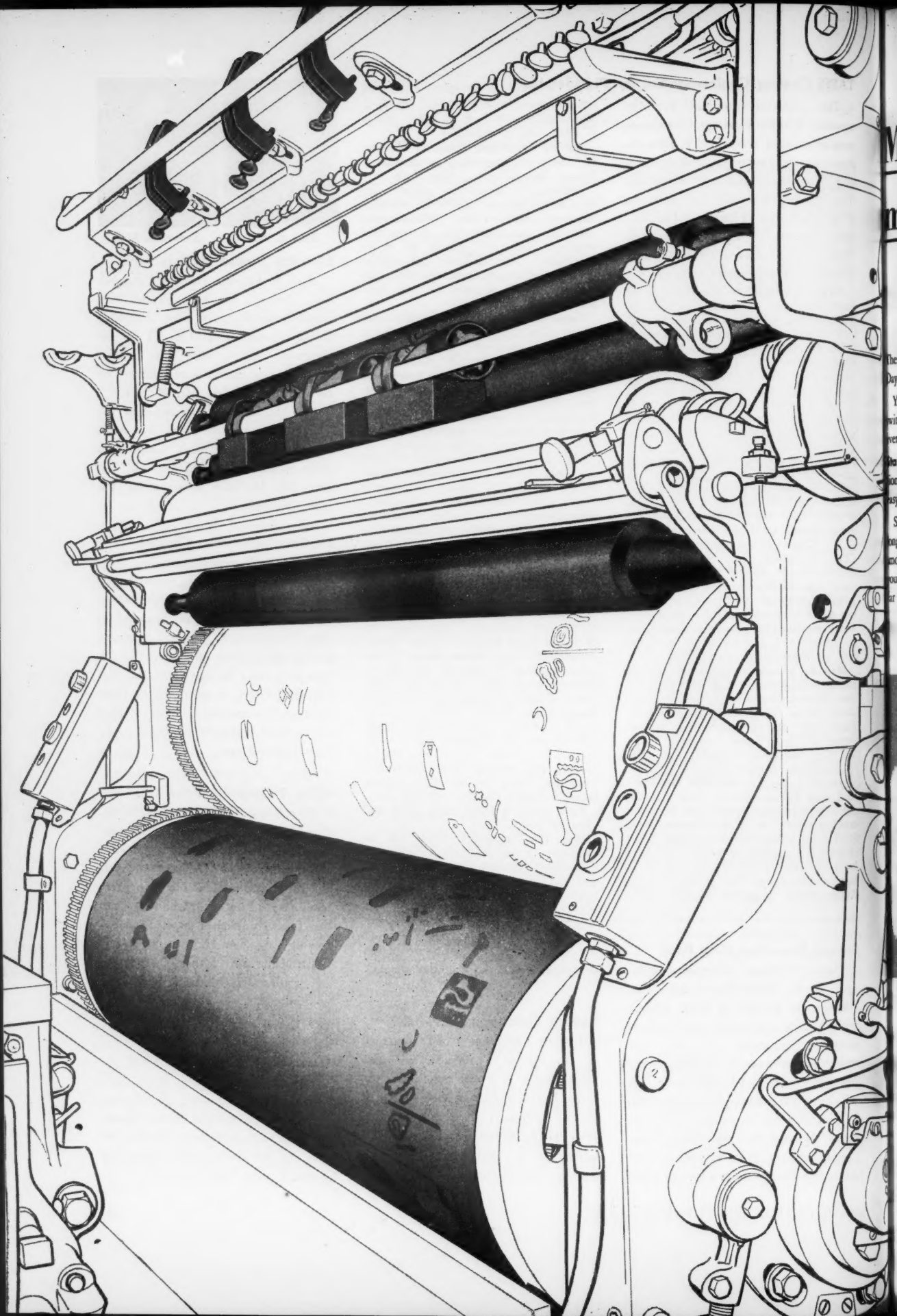
Owens Preparing New Book

Harry J. Owens, advertising manager, R. R. Donnelley & Sons Co., Chicago, is writing a book dealing with Abraham Lincoln's humor. In a newspaper interview during last month's observance of Lincoln's birthday, Mr. Owens said his new collection will bring together tales handed down by Lincoln's contemporaries which he heard repeated by the "Hot Stove League" in the grocery store of the downstate Illinois town where he grew

up. Mr. Owens, author of two books, describes himself as a "Sunday writer."

Eastern Colortype In Phila.

Eastern Colortype Corp., Clifton, N. J., opened a Philadelphia sales office March 1, it was announced by Bruce Bayne, executive vice president of the company. In charge of the office will be Bruno Gonella, who will service the Philadelphia-Baltimore area for Eastern Colortype.



Mo

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There's a
Dayco C

You'll
switching
every day

Start with
tion. No
easy beca

Synthe
ong, hi
smooth,
you'll ev
far less

Day
Ste

More ways to get more production, more quality, more color and more profit out of your presses

There's a *sure* way to get more out of your offset presses. It's the Dayco Combination that does the job!

You'll get a 40% average increase in color production by switching to these Dayco products. Other lithographers do it every day—so can you.

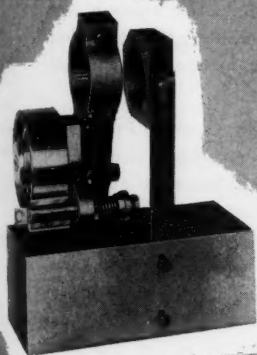
Start with the **Dayco Offset Roller** that really boosts production. No roller re-setting with Daycos — and the initial set is easy because Daycos are **ROUND . . .** precision ground.

Synthetic rubber Daycos *stay* round, won't crack or split under long, high speed runs. Daycos spread ink on the plate in a smooth, even film — give the most uniform ink distribution you'll ever see. And sleeve-type Daycos can be re-Daycoed at less than their original cost for greater savings.

Then include **resilient, smooth-faced Dayco Offset Blankets** that give you fine highlights and clean shadows and provide high offset quality. Faster recovery after blanket mash assures the same high fidelity sheet after sheet on the longest runs. Daycos have uniform thickness, will not swell, emboss, or deboss.

You'll get a real competitive advantage when your presses are equipped with Dayco Color Separators and Fountain Dividers. They let you run multi-color jobs one time through your one-color presses without cutting a single roller.

The Dayco Offset combination is the sure way to make the most of every press in your plant. Get full details from your Dayco Representative or write Dayton Rubber Company, Dayco Div., Dayton 1, Ohio.



The Dayco Color Separator

The Dayco Color Separator (only mechanical color separator made) eliminates expensive roller-cutting, reduces make-ready time and press time. Lets you print several colors—one time through the press—with splits as narrow as $1\frac{1}{2}$ " and no color mixing.



The Dayco Fountain Divider

The ideal fountain divider for split color and all other fountain users, the Dayco Fountain Divider is absolutely leakproof, quickly installed, easily adjusted and cleaned. It is sturdily constructed for years of service. Fully Guaranteed.

Dayton Rubber
51 YEARS OF PROGRESS

Dayco Rollers . . . for Offset, Letterpress, Newspaper, Gravure, Anilin, Coating, Graining, Steel Mills. Dayco Offset Blankets, Dayco Fountain Dividers, Dayco Color Separators.

West Coast Distributor, Tillicum Rubber Co., Lacey, Wash.

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THE DAYTON RUBBER CO.

Dayco Division, Dayton 1, Ohio

Tell me more! Send additional information about:

- ☐ Dayco Gold Seal Offset Blanket
- ☐ Dayco Roller
- ☐ Dayco Fountain Divider
- ☐ Dayco Color Separator

Name _____

Firm _____

Address _____

City _____ Zone _____ State _____

Walz Appointed Sales Manager



Dudley Walz, of Graphic Arts Corp. of Ohio, Toledo, O., was recently named general sales manager, it was announced by Bernard Sears, vice president and general manager. Mr. Walz, formerly eastern sales representative, left his New York post and began his new duties March 1.

He will head sales for all phases of the firm's operations, including commercial art, photography and the manufacture of printing plates for offset, letterpress and gravure. Mr. Walz was production manager for the New England Printing and Lithographing Co. prior to joining Graphic Arts in 1951.

Litho Dept. In West Coast Plant

West Coast Printing Co., Oakland, Cal., is establishing an offset lithography department, it was announced last month. A 17 1/2" x 22 1/2" Harris press was installed in the firm's new, 5,000 sq. ft. building. Jack Jaques, business manager and Harry Sims, plant manager, are the owners.

Direct Mail Day March 13

Mail Advertising Service Association, in conjunction with 32 other organizations, is sponsoring Direct Mail Day in New York, March 13 at the Waldorf Astoria. Robert Stone, vice president, National Research Bureau, Chicago, will deliver the opening address. He will speak on "Successful Direct Mail Methods."

The all-day program will be slanted towards using direct mail effectively in various types of industry and merchandising. All conferences are scheduled to be held in the Astor Gallery, with luncheon taking place in the Starlight Roof. Gene Flack, sales counsel and director of advertising, Sunshine Biscuits, Inc., will speak at the luncheon. Mr. Flack is past president of National Sales Executives, and past president and chairman of the board of the Sales Executives Club of New York.

Richard B. Eckman, vice president, Dickie-Raymond, Inc., New York, will speak at the afternoon session on "Readership in Direct Mail." His talk will be followed by a quiz panel

on testing in direct mail. The panel will be moderated by S. Arthur Dembner, circulation promotion manager, *Newsweek*. Registration fee for the entire day is \$11, and reservations may be made by writing to Felix Troyler, Mail Advertising Association, 55 West 42nd St., New York 36, N.Y.

Industrial Editors Meet

J. Evans Estabrook, president, Estabrook Printing Co., discussed lithography and offset printing at a recent meeting of the Upstate New York Council of Industrial Editors in Syracuse. Others speaking at the meeting were: Norman Miller, president, Onondaga Photo Engravers, and George C. Wortly III, vice president, Manlius Publishing Co.

Change of Quarters For Oxy-Dry

Oxy-Dry Sprayer Corp., Chicago, moved into new and larger quarters early last month. The move gives the firm larger manufacturing space for engineering and production of graphic arts equipment. Sales offices were also included in the change.

Harris' Cleveland Meeting

New and improved products for the graphic arts industry, resulting from Harris-Seybold Co.'s research and engineering programs, were discussed recently at a meeting of the Cleveland section of the firm's management group. Supervisors saw a demonstration of the new 14 x 20" Harris offset press, and heard the steps by which it had been developed through five years of engineering and research. "Management Meetings," on a variety of subjects, are held regularly in the major plants of Harris-Seybold and its subsidiary, The Cottrell Co.

Elwood P. Rockwell Succumbs

Elwood P. Rockwell, general manager of the Miami Valley Lithographers Association for 25 years, died Jan. 23 in Cincinnati following a long illness. For 27 years he had served as general manager of the Print Trades Association of Cincinnati, and for 25 years he was managing director of the Graphic Arts Association of Cincinnati.

ATF Appoints Charles Baker



Charles W. Baker, American Type Founders, Elizabeth N. J., has been appointed assistant to the director of research, according to a recent announcement by William W. Fisher, vice president. Mr. Baker, as assistant to George J. Sausele, will take charge of some of ATF's research projects.

Mr. Baker has been with ATF since 1942 serving as product engineer in the sales research department, as research engineer, photomechanical consultant and senior research engineer.

PIA Rotary Meeting March 22-23

The Rotary Business Forms Section of Printing Industry of America, Inc., will hold a meeting March 22-23 at the Edgewater Beach Hotel, Chicago. A highlight of the meeting will be the report on the second Production Standards Survey now under way in the section. Standards have already been set up for two pieces of industry equipment and standards for at least four more presses will be presented at the meeting.

The March meeting will deal with plant operations and feature panels on the following subjects: production control and scheduling; how to use systems for production control; copy preparation; plates used in rotary business forms production, and shell collating.

Max Clarkson, Clarkson Press, Buffalo, Section president, reminds all Rotary Business Forms printers that this will be a closed meeting and only active members of the Section will be permitted to attend. However, the Section extends an invitation to all suppliers to the Rotary Business Forms industry to attend this conference.

Nekoosa Reports Banner Year

Nekoosa-Edwards Paper Co., Port Edwards, Wis., announced to shareholders last month record sales of \$34,368,724 for 1955. That was a \$6 million increase over 1954. Paper shipments reached an all-time high of 121,000 tons as compared to 104,000 tons in 1954. Total net earnings were increased \$714,889.



From this control panel a technician introduces black, blue, red or yellow dyes to pulp stock in proportioning boxes. Scrupulous care is taken to insure the shade of white desired.

HOW HIS "4-COLOR" WORK MAKES YOURS EASIER

This is Allen Herman. From this board—part of a giant new \$1.2 million pulp stock handling system—he controls the flow of dyes in making paper at New York and Penn's Lock Haven, Pa., mill.

The scientific addition of dissolved colors into the pulp stock assures maximum consistency of color from one roll of paper to the next. Blue-white paper? Or a white sheet with a pinkish tint? Allen Herman takes into account the inherent color of the stock being processed, the color required and many other factors...and then adjusts the controls. The result is not only whiteness, but an *exact degree of whiteness* you can count on from one roll or carton to the next.

Color is only part of the tale, however. Other parts of the processing system control the stock consistency, flow, blending, and chemical and filler addition. To give you a notion of the system's massive dimensions—it takes more than 50 regulating instruments to control stock flow and liquid level alone.

An intricate system? Yes. But worth every penny of its cost in terms of the *consistent* high quality of the paper New York and Penn can deliver to your pressroom.

If you'd like to know more about the papers with the "Million-Dollar Quality," why not call your distributor today? Or write New York and Pennsylvania Co., 230 Park Ave., New York 17, N. Y.

New York and Penn *Pulp and Paper Manufacturers*

Super • English Finish • Eggshell • English Finish Litho • Offset • Music • Bond • Tablet • Duplicator • Mimeograph • Drawing • Imitation Press Board • and other specialty grades

Gordon Bartels Moves to New Factory in Rockford, Ill.

Gordon Bartels Co., Rockford, Ill., recently completed construction of a chemical coatings factory with 12,000 sq. ft. floor space. The factory is unique because it is constructed on the side of a hill which eliminates use of elevators and yet allows upper level loading of paint mills and mixing tanks. All production is handled by natural gravity feed.

Safety precautions featured in the new building include: explosion-proof windows which automatically fly open under pressure; a new type explosion-proof roof of gypsum planking, containing special clips which force the roof open during an explosion without



damaging the side walls. Electrical apparatus is grounded throughout, eliminating any static electricity. Production was scheduled to begin Feb. 15, concentrating on industrial finishes for flow coating, spray coating and roller coating.

Gordon Bartels, president, has been associated with the chemical industry for many years. Until Aug., 1955 he was president of Rockford Varnish Co. Carlton Howard, associated with Rockford for 23 years, is vice president and general manager of Bartels.

Porter Tours Printing Centers

Harry A. Porter, 1955 Man-of-the-Year, Graphic Arts Industry, has started a tour of major printing centers in the U. S. to inform the industry of the Educational Council's program and to urge printers to "Invest in Youth." Mr. Porter has addressed groups in New Haven, Conn., Boston, Washington, Philadelphia, Wichita, Omaha and Des Moines.

Celebrating his 50th year in the graphic arts industry, Mr. Porter has undertaken the task of urging the printing industry to organize itself to assure a continuing supply of qualified well-trained manpower. Mr. Porter is being accompanied by Samuel M. Burt, managing director, Educational Council of the Graphic Arts Industry.

Discussing the program and services of the Educational Council, Mr. Porter stated: "The Council's services will have no effect in your community unless you yourselves do something with it. Education is primarily a local responsibility. Therefore, the foundation for the entire graphic arts education system must rest with local groups of printers working with local schools, local educators and local teachers."

Mr. Porter's itinerary will carry him to Atlanta, Nashville, Louisville and Dayton during March and into at least another 10 cities before next Fall. He will be speaking at luncheon and dinner meetings of printers, print-

ing teachers and vocational educators. A copy of his itinerary may be obtained from the Education Council, Graphic Arts Industry, Inc., 719 15th St., N. W., Washington 5, D. C. or by writing directly to Harry A. Porter, Harris-Seybold Co., 4510 East 71st St., Cleveland 5, Ohio.

Chi. Litho Assn. Elects Officers

Directors of Chicago Lithographers Association elected officers for 1956 at their annual business meeting recently. Officers are: Oran Brown, president, Rand McNally & Co.; William S. Moore, vice president, Newman Rudolph Lithographing Co.; Charles Roeder, treasurer, Roeder Studios and Kevil H. Mason, secretary, Columbian Lithographing Co. George Mattson will continue as executive manager. Mr. Moore succeeds Vernon Evans, Veritone Co., who was vice president for the past several years.

Vision Color Cards Moves

Jack Goldsweig and Jerry Gordon, Vision Color Cards, New York, announced Feb. 23 that the firm has moved from 72 Park Place to 21 Hudson St. The move marks the third expansion in six years. Mr. Gordon said that new printing, cutting and bindery equipment acquired through the years has helped to crowd the quarters in the old plant and made mandatory the latest move to larger quarters.

Contest Rules Mailed Out

Lithographers and printers in the U.S. and Canada are urged to prepare their entries for the 1956 Printing Industry of America, Inc., Printers' and Lithographers' Self-Advertising Exhibition and Awards. Deadline for this year's entries is Sept. 28. Judging will take place Oct. 28 through Nov. 1 at Hotel Statler, Los Angeles.

Members of the PIA staff have mailed out the rules and regulations to printers and lithographers.

Mitchell Named Sales Manager

Samuel S. Mitchell Jr. has recently been appointed Buffalo Division sales manager for J. W. Clement Co., Buffalo. Mr. Mitchell will handle the company's sales within a 500-mile radius of Buffalo. His new duties were previously handled by vice president and secretary William D. Roesser. Mr. Mitchell has been with Clement for five years.

Craftint Revamps Colors

Craftint Manufacturing Co., Cleveland, announced Feb. 10 it is reformulating, repackaging and merging Craftint and Devoe Signwriter's Colors-in-Japan, after intense laboratory research and service tests. The newly combined quick-drying Japans offered in 30 different colors, provide brilliance, high quality and finely ground pigments to assure maximum adhesion, the company said.

Photo Experiments Made Known

Office of Technical Services, U. S. Department of Commerce, recently released a report of Air Force research on experiments showing how the photographically important properties of silver chloride vary with the crystal surface. The study found that spherical and flat silver chloride crystals act differently during etching, development in photographic developers and electrolytic treatment.

Litho Local Changes Address

Amalgamated Lithographers Local No. 7, Milwaukee, have moved their offices to 3818 N. Port Washington Rd., Milwaukee 12, Wis.

YLA Hears Mail Order Ad Panel

Three specialists in direct mail order advertising conducted a discussion panel at the monthly dinner meeting of the Young Lithographers Association of New York at the Advertising Club Feb. 8. The speakers were Elsworth Howell, vice president in charge of mail order division, The Grolier Society, New York; Donald M. Brown, mail order specialist, New Rochelle, N. Y. and Arthur Martin Karl, president, Names Unlimited, Inc., New York.

"Lithography comes into the mail order picture," said Mr. Brown, "when color and art work must be of the highest calibre." It was pointed out that the criteria by which mail order companies buy lithography are quality and price. All phases of mail order advertising—cost, lists, copy, art work, lithographing, printing, distribution—were discussed during the question and answer session.

Maxwell Friedman, YLA president, announced that a \$20 chapeau will go to the member who brings in the most new members by the next meeting, March 21. At that annual business meeting, officers and a board of directors will be elected. Kurt Heinrich was named chairman of the nominating committee, assisted by John Heim and Art Fein. Bernard J. Schmitt, Brett Lithographing Co., New York, is a new member.

Litho, Letterpress On Way Out?

In answering the question, "What branch of the printing industry is likely to have the greatest opportunity for advancement in the future?" D. Hopewell, assistant general manager, Kynoch Press, Birmingham, England said, "I think both lithographic and letterpress printing are on the way out." His answer was made at the Birmingham Centre of Printers' Managers and Overseers Association's Brain Trust, held recently.

Mr. Hopewell suggested that letterpress and lithography be "married" into one. In looking for an answer to the printing problem he said, "I think there is quite a future for a time in all three fields of printing. I think for the future the answer will be dry off-set printing."



J. F. Davison



R. Kleinschmidt



E. H. Hamilton



T. F. DeNormandie

Changes In Miehle Personnel

Carlton Mellick, Miehle Printing Press & Manufacturing Co., Chicago, vice president in charge of sales, recently announced appointments and transfers of several key men:

John F. Davidson is new manager of the St. Louis territory. Mr. Davidson, formerly manager of the Washington, D.C., territory, is replacing Ralph

Kleinschmidt, who has been reassigned to Chicago.

E. Hale Hamilton was appointed new manager of the Washington area. He was formerly the Miehle representative in Cleveland.

Thomas F. DeNormandie was appointed manager of the Cincinnati area. He is being transferred from the Minneapolis territory.

SIU Holds Typographic Workshop

The first annual Southern Illinois University Typographic Workshop was held Feb. 18 at the University, Carbondale, Ill., with Howard N. King, Brooklyn, conducting sessions at the SIU workshop. Mr. King has lectured as typographic counselor to the Intertype Corp., Brooklyn, for the past 12 years. He discussed type faces and typographic design and analyzed area publications.

Annual AAAA Meets April 26-28

The 38th annual meeting of the American Association of Advertising Agencies will be held April 26-27 at The Greenbrier Hotel, White Sulphur Springs, W. Va.

In addition to invited media and advertiser guests, delegates will be present from 40 countries. They will be attending the 1956 A.A.A.A. International Meeting of Advertising Agency Leaders. The International meeting will continue over a two week period, April 23-May 4, with sessions in New York and Washington as well as White Sulphur Springs.

Edelman New S&V District Mgr.

Appointment of Herbert L. Edelman as district manager of Sinclair & Valentine Co.'s Florida territory was announced recently by H. J. Soriano, vice president and general sales manager. Mr. Edelman has been manager of the firm's Pensacola branch since it began in 1950 and a member of the firm since 1941.

BFI Meets, Elects Officers

Members of Business Forms Institute, Greenwich, Conn., heard a talk on the "Outlook For Paper Supply" by M. C. Dobrow, executive secretary of the Writing Paper Manufacturers Association, at their annual meeting Feb. 9-10 in New York.

New officers elected at the two day meeting are: R. S. Daugherty, Shelby Salesbook Co., Shelby, O., president; W. C. Lamprechter, Stephen Greene Co., Philadelphia, 1st vice president; Thomas A. Taylor, Schwabacher-Frey Co., San Francisco, 2nd vice president. H. M. Meloney, Greenwich, continues as executive secretary.

Uarco Appoints Suchers

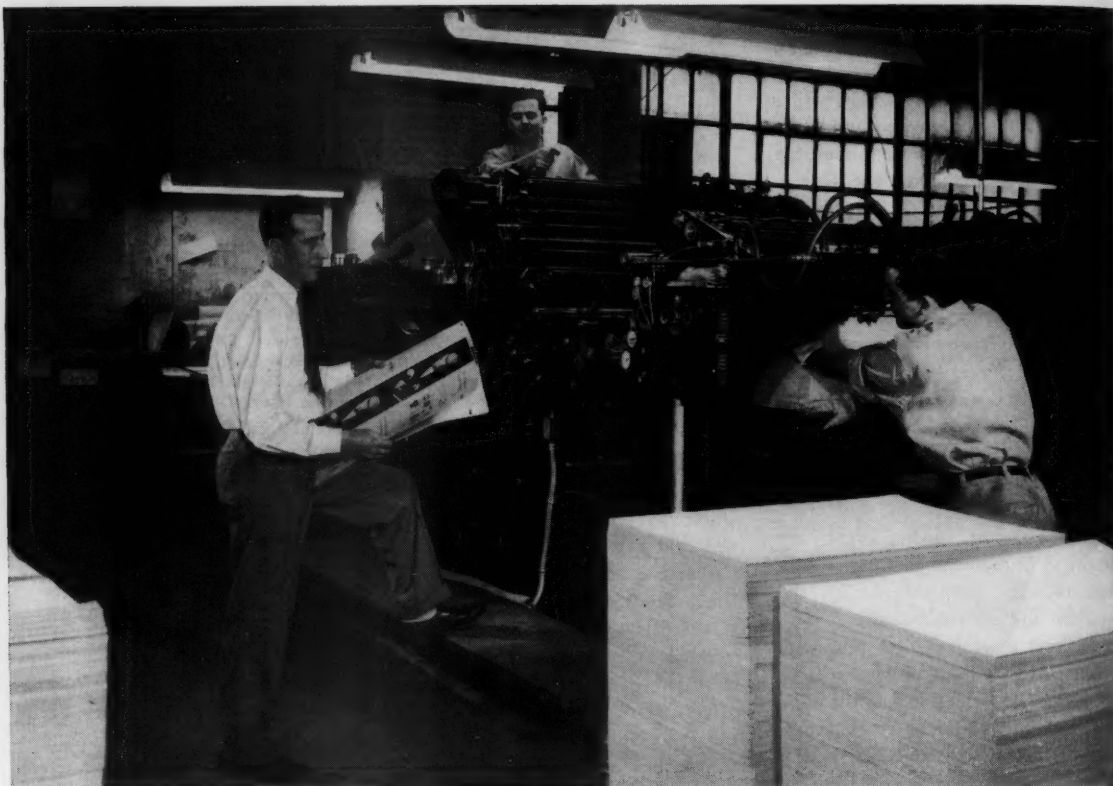
Uarco, Inc., Chicago, announced recently the appointment of William J. Suchers as executive assistant to the president. Mr. Suchers was formerly a manager for International Business Machines Corp. in New York.

Iowa Firm To Air Condition

American Lithographing and Printing Co., Des Moines, Iowa, announced Feb. 12 it has let contracts totaling nearly \$60,000 for air conditioning, humidity control, sound abatement and elimination of dust in its plant.

The purpose of the improvement is to maintain ideal conditions for production and quality control in offset lithography and letterpress printing operations.

You can get it all from Mead—*Papermakers to America*



For better impressions, whatever the job, print on Mead Papers. You have at your disposal a completely diversified line of papers in colors, weights and finishes for every printed use. Let your Mead merchant be your source of supply. He knows that the skills and resources of the entire Mead organization are concentrated on the job of making Mead Papers the best value in paper today.

Mead Papers Help Lithographers Beat Deadlines on Long Press Runs

Uniform quality holds press time to the minimum

When time is a big consideration, and when quality in a job is all important, it pays to print on Mead Papers. You can rely on them for top performance and results because they are made with your needs in mind. Their built-in uniformity and quality are your assurance of trouble-free handling both on press and off, your assurance of delivering the kind of job you plan, on time and within the budget.

Whether your next job is an annual

report, booklet, catalog or brochure, you'll find a paper made by Mead exactly suited to your need. There's Mead Moistrite Offset, a paper made especially to give exceptional brilliance to full-color process work. There's Northlite Offset, ideally suited for long-run economy and so popular for its bulk and opacity. These are but two of the diversified line of offset papers which are standard Mead products. Let them work to your profit.

MEAD
papers

THE MEAD CORPORATION

Papermakers to America

Sales Offices: Mead Papers, Inc., 118 West First Street, Dayton 2, Ohio
New York • Chicago • Boston • Philadelphia • Atlanta

Quality Offset Papers by Mead

- Dilcol Offset Translucent
- Printflex Offset Enamel
- Printflex Offset Coated Cover
- Richgloss Offset Enamel
- Mead Opaque
- Moistrite Offset
- De & Se Tints
- Northlite Offset

Ask your paper merchant for samples
of these papers

Lawson Advances Reiss to V.P.

Lester M. Reiss, E. P. Lawson Co., New York, has been named vice president of the firm, it was announced



L. M. Reiss

Feb. 8 by D. W. Schulkind, president.

Mr. Reiss, who has been with Lawson for eight years, will continue in his capacity as Eastern sales manager, with headquarters in New York.

Todd Sets New Sales Record

Sales of the Todd Co., Inc., Rochester, for 1955 totaled \$22,373,655, hitting a new high for the third successive year, according to an announcement, Feb. 8, by George L. Todd, president. He said 1955 figures represent a gain of 12.4 per cent over 1954's volume. Contributing to the year's increase was the biggest month's business in Todd history, December, when sales totaled \$2½ million.

Ozalid Display At Ad Show

Representatives of Ozalid, division of General Aniline & Film Corp., Johnson City, N. Y., demonstrated production of "Ozalith" sensitized offset plates for office offset duplicator use at the 2nd annual National Advertising Industries Exposition in Chicago late in January. The new paper plate can be exposed in an Ozalid copying machine and developed in less than 90 seconds, or an aluminum plate can be prepared in two minutes.

Green Duck Co., Chicago metal decorating firm, one of the 60 exhibitors, presented its line of buttons,

badges, emblems, coins and other advertising novelties. Other exhibitors interested in the offset industry were: Rylander Co., Chicago, direct mail service agency; Halber Corp., Chicago, makers of lettering machines; Ideal Art, New York; General Binding Corp., Chicago; Folding Paper Box Association of America, Chicago; Filmotype, Chicago; Eugene Lewis Studio, Chicago, and Mark Specialty Co., Rochester, makers of lithographers' and printers' tools.

Topic: LNA Insurance Program

Presentation of the Lithographers National Association group fire insurance plan will be a major feature of the 51st annual LNA convention May 10-12 at the Drake Hotel, Chicago. Every important facet of the LNA blanket fire and use and occupancy insurance plan will be dealt with thoroughly, the program committee said.

The program, which will take place May 11, will be sponsored by the Cost, Accounting and Financial Management Committee. A dramatic skit dealing with the group insurance program and its importance to lithographers will be presented. Essential features of the plan will be discussed by representatives of the Blackstone Mutual Life Insurance Co., the underwriters, and Betterley Associates, independent LNA insurance counselors.

Watervliet Control To Hammermill

Hammermill Paper Co., Erie, Pa., announced Feb. 17 it has acquired control of the Watervliet (Michigan) Paper Co. Hammermill had previously offered Watervliet's stockholders an exchange of 26 shares of Hammermill common stock for 25 shares of Watervliet capital stock. More than 80 per cent of Watervliet's capital stock has now been deposited for the exchange.

Watervliet Paper Co. manufacturing facilities include two paper machines, four coaters, five supercalenders and two pasters. Production, including litho, book, cover, post card and label grades, is approximately 170,000 pounds per day.

Miehle Elects J. W. Coultrap

J. W. Coultrap, Miehle Printing Press & Mfg. Co., Chicago, was recently elected vice president of the



J. W. Coultrap

firm, according to J. E. Eddy, president and chairman of the board.

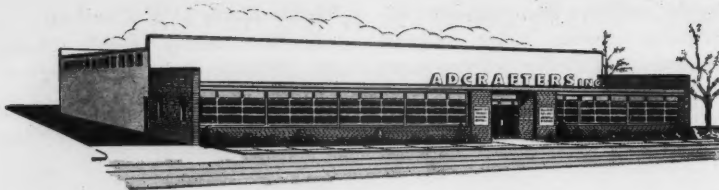
Mr. Coultrap joined Miehle in 1941 as head of the legal department. He became secretary of the firm in 1943 and was elected to the board of directors in 1951. He is also assistant treasurer of Miehle and will continue to serve in his present capacity as secretary and general counsel.

NAPL Eyes Group Insurance

National Association of Photo-Lithographers announced recently that its board of directors appointed a committee on insurance which will set up group life insurance for any member of NAPL so desiring. The association said the cost for the insurance would be low because of its wholesale purchasing power. A preliminary questionnaire and data sheet has been mailed to members seeking their opinions on the subject.

Powers Joins Apinogue Print

Robert Powers, Offset & Gravure Cylinder Div., Dennison Manufacturing Co., Framingham, Mass., has been named superintendent of the Gravure Department, Apinogue Print Works, Warwick, R. I., it was announced recently. Mr. Powers, formerly foreman of the offset department at Dennison, has been succeeded by William Kohler, formerly in charge of the camera division.



New Plant for Adcrafters

Adcrafters Printing & Offset Co., Inc., Baltimore, announced last month the breaking of ground for this new modern building designed especially to house the latest type printing and lithographic production units.

Plans call for a streamlined method of operation, permitting every phase of printing to be done in assembly line fashion. Adcrafters was founded in 1939 by William L. Graf and Frank J. Denver. William J. Weitzel is general manager of the company.

Institute Enrollment 215

Chicago Lithographic Institute began its spring semester Feb. 6 with an enrollment of 215. This, according to Frank F. Oehme, executive director of the school, includes 45 apprentices in the two year training course and also the participants in the special training program conducted under contract for the U. S. Army Air Force. Another group of 35 journeymen, representing all branches of the trade, completed the informal clinic course in which they are informed on the latest technical information available. An intensive survey course, to be conducted at night, will begin April 4, and continue for 10 weeks, said Mr. Oehme.

National Press Names Kappelhof

National Press, Palo Alto, Cal., announced recently the appointment of Henry B. Kappelhof as production manager. Mr. Kappelhof was formerly with H. S. Crocker Co., San Bruno, Cal. Ray Oufson and Ben Bekker were named composing room and pressroom foremen, respectively.

LTF Forum Due In October

Arthur Herst, president, Metropolitan Lithographers Association, announced recently that the Association and Local No. 1, A.L.A. will co-sponsor a TV technical forum conducted by the Lithographic Technical Foundation staff to be held in New York in late October.

The program will cover the newest developments in the lithographic

process and the latest methods for quality control and production. Closed circuit TV, demonstrations and sound motion pictures will be used. In April, 1953, MLA sponsored the first of the LTF television forums shown in New York City.

Expansion At Reynolds

Richard H. Grant, Jr., president, Reynolds & Reynolds Co., Dayton, O., recently announced a \$500,000 expansion program. Construction of a new three-story warehouse, purchase of additional land for employee parking and installation of new printing press equipment are included in the plan.

Mr. Grant said part of the present parking area will be devoted to the new warehouse, with construction slated to begin in the spring. Cost of the building, with 24,000 sq. ft. of space, was estimated at \$150,000.

Lithography 2-To-1 In Survey

A survey of 2,000 firms engaged in the purchase of printing and production, conducted a few months ago by Black Box Collotype Studio, Inc., Chicago, has revealed that offset printing in dollar volume is now being utilized more than letterpress by two to one.

Black Box learned that of the more than \$30 million worth of printing purchased by the 313 firms who responded to the survey, 62 per cent represented purchases for offset.

The survey revealed that only a fraction of those surveyed had any knowledge of collotype printing; 14 said they had never heard of it.

Convention Listed March 12-14

The Folding Paper Box Association will hold its annual convention in San Francisco, March 12-14, it was announced Feb. 20 by Gustav L. Nordstrom, executive secretary of the association. Mr. Nordstrom said that the expected attendance of 500 will include representatives of more than half the manufacturers in the \$900 million industry. Meetings are scheduled to be held in the Fairmont and Mark Hopkins hotels.

The convention will feature the complete display of 7,027 entries in the 11th Annual Folding Box Contest, sponsored by the association. Awards for the 100 best cartons will be announced opening day. The agenda of the three-day meeting will also include presentations of safety awards, discussions of economic conditions and sessions on public and industrial relations. Workshop seminars in bakery packaging, production, research and industrial relations will also be conducted.

P.L.A., L.A., Elects Officers

Members of Printing Industries Association, Inc., of Los Angeles, recently elected new officers. They are: Sid James, Kellaway Ide Co., president; Ira Korsen, Eureka Press, vice president and Ben Johnston, Zenith Printing Co., secretary treasurer.

Three new directors were elected: O. T. Hamilton, North Hollywood Printing & Stationery Co.; Robert M. Parker, Jr., Parker & Son; and Dale Magor, Jeffries Banknote Co. Five others were re-elected: James Lansill, Pacific Press, Inc.; Guy Logan, Monsen-Los Angeles; Edward J. Male, Male & Stanton; S. W. Slosburg, Universal Printing & Lithograph Co. and W. Arthur Stewart, Rapid Lithograph.

Dallas Litho Firm Wins Award

Southwest Printing Co., Dallas, has won a top award in national competition with its 4-color Litho-Krome folder forming the 4-page center spread of the December issue of *Dallas Magazine*. The award was presented by the Mead Paper Co. and the folder was entered by the Clampitt Paper Co., Dallas.

When a quantity job is desired and economy required, **MANIFEST BOND** satisfies the strictest demands . . . for it provides the same "feel" and appearance as more expensive sheets.

The moisture content of **MANIFEST BOND** is controlled electronically during the paper-making process...assuring that every sheet has just the right amount of moisture. This in turn reduces static electricity...making for smoother performance in all printing processes.

MANIFEST BOND'S greater bulk—exceptional

in an economy sheet — not only reduces make-ready time, but results in smoother impressions...producing a better-looking job throughout the run.

Surface-sized for better "erasability," **MANIFEST BOND** comes in six striking colors and a new, brighter, whiter white.

Find out for yourself why **MANIFEST BOND** is the economy leader...and how it can lead your business to greater savings. Ask your Eastern Corporation Merchant for a free sample packet today.

wherever economy counts
first in business

Manifest Bond is 1st choice

in economy
bonds



Manifest Bond

PRODUCTS OF EASTERN CORPORATION, BANGOR, MAINE • MANUFACTURERS OF QUALITY PAPER AND PULP
MILLS AT BANGOR AND LINCOLN, MAINE • SALES OFFICES: NEW YORK, BOSTON, PHILADELPHIA, CHICAGO AND ATLANTA

MANIFEST BOND®
MANIFEST DUPLICATOR
MANIFEST MIMED
MANIFEST LEDGER

"CHAMPION" Deep Etch DOWN-DRAFT Lithographers Work Table

COMPLETELY ELIMINATES ALL HAZARDOUS FUMES

Check these advantages:

- ✓ Removes all hazardous fumes at their source—no odor in shop and offices.
- ✓ Table at convenient working height.
- ✓ Exhaust slot removes contaminated air through slot all around perimeter of working area at high velocity.
- ✓ Acid resistant KOROSEAL lined disposal pitches to a KOROSEAL lined 2" drain.
- ✓ Processing of plates on an everlasting smooth surfaced slate slab.
- ✓ Large heavy duty ball-bearing type built-in suction blower operates quietly and is belt driven by a standard speed motor.
- ✓ Reduces absenteeism.
- ✓ Tends to reduce insurance rates.
- ✓ Increases production.



4 POPULAR SIZES

No.	Slate Slab	Overall Dimensions (All 33½" High)	Exhaust Blower Capacity: Cu. Ft. Air Per Minute	Motor H. P.
1	30"x40"	42"x50"	2500	1
2	42"x50"	54"x62"	3200	1½
3	50"x60"	62"x72"	4200	1½
4	60"x80"	72"x92"	4800	2

SOME OF THE USERS OF "CHAMPION" EQUIPMENT

IN CHICAGO:

Jahn & Olier Engraving Co.
Chicago Litho Plate Graining Co.

American Offset Co.
Collins, Miller & Hutchings
Superior Engraving Co.
R. R. Donnelley & Sons Co.
Central Type Setting Co.
Caspers Tin Plate Co.
American Can Co.

OUT-OF-TOWN USERS

Eastman Kodak Co.
Rochester, N. Y.
Gugler Litho Co.
Milwaukee, Wis.
Conner Lithographers
Detroit, Mich.
Hall Brothers
Kansas City, Mo.
Epsen Litho Co.
Omaha, Neb.
Atlanta Litho Co.
Atlanta, Ga.
Crane Howard Litho Co.
Cleveland, Ohio
Arrow Engraving Co.
Cleveland, Ohio
Marathon Corporation
Neenah, Wis.
A. L. Garber Co.
Ashland, Ohio
Litho Plate Service Co.
Toledo, Ohio
American Litho Co., Inc.
Atlanta, Ga.
Ideal Litho Service
San Antonio, Texas
Strobridge Litho Co.
Cincinnati, Ohio
Lithographic Plate Service
North Hollywood, Cal.

IN LOS ANGELES:

Mission Engraving Co.
Dillion Lithograph Co.
Colortone

DISTRIBUTORS

Bridgeport Engraver's Supply Co.
California Ink Co.

Harold M. Pitman Co.
E. T. Sullebarger Co.
Roberts & Porter, Inc.
IN CANADA

Toronto Type Founders Co., Ltd.
Latimer, Ltd., Toronto
Robert Allworth, Ltd., Toronto

"CHAMPION" Improved TEMPERATURE CONTROLLED Developing Sinks



MAINTAINS EVEN TEMPERATURE WITHIN A FRACTION OF A DEGREE

Features:

- ✓ Recirculating pump equalizes sink water temperature by forced flow of water around and under developing trays.
- ✓ Will maintain separate desired temperatures for sink trays (heating and cooling) and for storage compartment (cooling) to within a fraction of a degree of setting.
- ✓ Equipped with latest type hermetically sealed, trouble free refrigerating unit.
- ✓ In operation a continuous flow of water is not required. Result: no water wasted.

- ✓ Disposal trough for tray contents in back for convenience.
- ✓ High back splash, sink aprons, etc. constructed of polished stainless steel, heliarc welded.

#1 3 Trays 20x24 Film Size 32½" x 74"
#2 3 Trays 26x30 Film Size 39" x 93"
#3 3 Trays 30x40 Film Size 49" x 105"

... and other sizes available for your special requirements.

manufactured by **H. SCHMIDT & CO.**

ESTABLISHED 1891

317 S. Paulina St., Chicago 12, Ill.

SElsey 3-0404



Industry Expansion Foreseen

The graphic arts industry—already one of the fastest growing in the U.S.—will continue to expand throughout 1956 in the opinion of H. Howard Colehower, past president of the Printers Supplymen's Guild of Philadelphia and president of Jomac, Inc., Philadelphia.

On the basis of Jomac's studies of prospects for 1956 "more and more letterpress printers are going into lithography, and offset printing houses are continuing to expand their facilities," Mr. Colehower said. He cited an analysis of a capital expenditure survey made by the Federal Reserve Bank in the greater Philadelphia area, as published in the *Philadelphia Chamber of Commerce News*, as an indication of the trend to be expected in the graphic arts industry.

During the past five years the industry spent \$55 million for plant expansion and modernization of equipment, the survey shows. Indications are that an additional \$6 million will be spent in the Philadelphia area in '56.

Mr. Colehower foresees an increased use of graphic arts in advertising, packaging and in all of the various printed media used to introduce products and sell the nation's production to the consumer.

Clapp, Lee Appointed By OMS

Andrew A. D'Eramo, general manager, OMS Mail Advertising, Boston, recently announced the appointment of Winthrop S. Clapp as advertising and sales promotion manager. Clapp's most recent affiliations have been with American Optical Co., Southbridge, Mass. and Diamond Match Co. OMS also announced the appointment of Sylvia Lee as a sales executive.

La Monte Plans 3-Day Meeting

The three day sales meeting, March 5-7, of George La Monte & Sons, Nutley, N. J., was highlighted by an executive dinner at Union League Club, New York. Dr. Thurman W. Van Metre, noted economist and professor emeritus of transportation at Columbia University's School of Business was principal speaker. The three day program launched the firm's pro-

Indiana Lithographer Moves

Delaware Engraving and Lithograph Co., Inc., Muncie, Ind., recently moved into its new, modern building. The 10,000 square feet, air conditioned, engraving and offset plant is located on a



five acre tract, allowing room for future expansion.

gram for increased activity in connection with its 85th anniversary to be officially celebrated in late spring.

Thirty-year Business Sold

Rapid Grip and Batten Ltd., Toronto, Ont., recently acquired the 30-year-old offset plate business of Harold & Garbe, Ltd. The firm will be operated under the name of Harold & Garbe. Rapid Grip has other offset plate production units in its Montreal and Ottawa plants.

Net Earnings Up In 1955

U. S. Printing & Lithograph Co., Cincinnati, reported unaudited net earnings for 1955 of \$1,625,486, compared with 1954 earnings of \$1,431,006. President W. H. Walters said that an increased common stock dividend, just disclosed, reflects the firm's recent action in retiring one third of its outstanding preference stock, together with increased 1955 earnings.

Barwick Is First Entry

Headquarters for the P.I.A. Printers' and Lithographers' Self-Advertising Exhibition & Awards contest reports that the first entry for the 1956 contest was received early last month. The "early bird," Barwick & Son, Ltd., Montreal, won an honorable mention in the 1955 exhibition. P.I.A. and Miller Printing Machinery Co., Pittsburgh, sponsors of the exhibition, report that this is the earliest date ever for the first entry.

Monthly Mailing Program

Murray Printing Co., lithographers, Wakefield, Mass., have begun a mailing program of a monthly calendar to its clients. The calendar, an easel type, contains the past, current and immediate future months.

LTF Plans Work Shop March 23-24

The Research Staff of Lithographic Technical Foundation will present a Lithographic Work Shop for metropolitan New York, March 23-24 at Henry Hudson Hotel, New York. A closed circuit TV, live demonstration will be a feature of the Work Shop.

Seven members of the LTF Research Staff will stage the TV demonstration and will report on the latest techniques. Discussions of latest camera, plate and press techniques will be conducted. The program will include films and a question and answer period in open forum.

Demonstrations and discussions for the three day workshop are as follows: "Making Halftones and Contacts," Frank Preucil and Ed Brody; "Paper Troubles on the Press," Charles Borchers; "Ink Troubles on the Press," Bob Reed; "Surface and Deep-Etch Platemaking," Ed Martin and Mr. Bruno; "Bi-metal and Presensitized Plates," Mr. Bruno; "Handling Plates on the Press," Mr. Martin; "Instruments for Control and Standardization," Mr. Bruno; "Questions on platemaking," LTF staff; "New Press Wash-up Methods and the Elimination of Ink Roller Stripping," Mr. Bruno; "Coloring Masking," Mr. Preucil; "Educational and Audio-Visual Program," Jack White; "The Crystal Ball," Mr. Bruno, and a quiz session by LTF staff.

Wright Changes Location

J. R. Wright Printing Co., Toledo, located on Erie St. for over 25 years, recently moved into larger space on Morris St. to accommodate additional offset, letter presses and bindery equipment, according to Thomas Knott, president. The new operations are directed by Ray Mohr, recently appointed plant superintendent.

Keller Employee Succumbs

Raymond A. Hershberger, 51, William J. Keller, Inc., Buffalo, died Feb. 19 at his home. He was foreman of the firm's composing room.

Trade Events

National Packaging Exposition, 25th annual showing, April 9-12, Convention Hall, Atlantic City.

National Association of Litho Clubs, annual convention, April 20-21, Lord Baltimore Hotel, Baltimore, Md.

Technical Association of Graphic Arts, annual convention, May 7-9, Edgewater Beach Hotel, Chicago.

Technical Association of the Pulp and Paper Industry, Coating Conference, May 7-9, Benjamin Franklin Hotel, Philadelphia.

Research & Engineering Council, 6th annual meeting, May 9-11, Edgewater Beach Hotel, Chicago.

Lithographers National Association, 51st annual convention, May 10-12, Drake Hotel, Chicago.

International Graphic Arts Education Association, annual convention, Aug. 5-10, Santa Barbara, Calif.

National Association of Photo-Lithographers, 24th annual convention, Sept. 19-22, Commodore Hotel, New York City.

Printing Industry of America, annual convention, Oct. 30-Nov. 2, Statler Hotel, Los Angeles, Calif.

Litho Schools

CANADA—Ryerson Institute of Technology, School of Graphic Arts, 50 Gould St., Toronto, Ont., Canada.

CHICAGO—Chicago Lithographic Institute, Glessner House, 1800 S. Prairie Ave., Chicago 16, Ill.

CINCINNATI—Ohio Mechanics Institute, Cincinnati, Ohio.

LOS ANGELES—Los Angeles Trade Technical Junior College, 1646 S. Olive St., Los Angeles 15, Calif.

MINNEAPOLIS—Dunwoody Industrial Institute, 818 Wayzata Blvd., Minneapolis 3, Minn.

NASHVILLE—Southern School of Printing, 1514 South St., Nashville, Tenn.

NEW YORK—New York Trade School, Lithographic Department, 312 East 67 St., New York, N. Y.

OKLAHOMA—Oklahoma A & M Technical School, Graphic Arts Dept., Okmulgee, Okla.

ROCHESTER—Rochester Institute of Technology, Dept. of Publishing & Printing, 65 Plymouth Ave., South Rochester 8, N. Y.

PHILADELPHIA—Murrell Dobbins Vocational School, 22nd and Lehigh, Philadelphia, Pa.

PITTSBURGH—Carnegie Institute of Technology, School of Printing Management, Pittsburgh.

SAN FRANCISCO—City College of San Francisco, Ocean and Phelan Aves., Graphic Arts Department.

ST. LOUIS—David Ranken, Jr., School of Mechanical Trades, 4431 Finney St., St. Louis 8, Mo.

VANCOUVER—Clark College.

WEST VIRGINIA—W. Va. Institute of Technology, Montgomery, W. Va.

Trade Directory

Lithographic Tech. Foundation
Wade E. Griswold, Exec. Dir.
131 East 39 St., New York 16, N. Y.

National Association of Photo-Lithographers
Walter E. Soderstrom, Exec. V. P.
317 West 45 St., New York 36, N. Y.

Lithographers National Association
W. Floyd Maxwell, Exec. Dir.
420 Lexington Ave., New York 17, N. Y.

National Assn. of Litho Clubs
Frank H. Mortimer, Secy.
5917 33rd St., N. W.
Washington 15, D. C.

Printing Industry of America
James R. Brackett, Gen. Mgr.
719 15th St., N. W. Washington 5, D. C.

International Assn. of Printing House Craftsmen
P. E. Oldt, Exec. Sec'y.
307 E. Fourth St., Cincinnati 2.



E. Stern

D. Kennedy

Kennedy, Stern in New Positions

D. Thomas Kennedy, Robertson Photo-mechanix, Inc., Chicago, was appointed sales promotion manager Feb. 5, it was announced by Leonard S. Florsheim Jr., president. Edward C. Stern succeeds Mr. Kennedy as advertising manager.

Mr. Kennedy will concentrate on special uses of Robertson products designed for office and industrial applications. Mr. Stern came to Robertson last December after three years with W. T. Sorenson & Associates, Chicago.

Cal Ink In New \$250,000 Plant

Cal Ink, Portland, Ore., recently moved into a new \$250,000 plant which more than doubles the firms space. Fred Huber, manager, said the company is now one of the Northwest's largest ink and graphic arts supply centers.

Production capacity has been increased 25 per cent by the addition of new equipment including a high-speed roller mill which gives a finer grind required for litho and bag inks.

Standard Register Honored

Standard Register Co., Dayton, Ohio, was recently awarded the designation of "excellently managed" by the American Institute of Management. The company was also termed "one of the best managed privately-owned enterprises in the country."

Standard's success in the office automation field helped gain recognition by the Institute. In making the report public, Jackson Martindell, president of the Research Foundation, said "Some of the company's methods and controls have reached a stage of maturity as much as five years beyond those of other organizations of a similar size and character.

Air Conditioning at Palm Bros.

Palm Brothers Decalcomania Co., Cincinnati, has speeded up production of decals by installation of a complex air conditioning system, which includes humidity control as a key feature. The company found that a relative humidity of 50 per cent at a maintained temperature of 70° prevents: paper sticking, inks failing to dry, generation of static electricity and uncontrolled expansion or contraction of film. A Kathabar unit, made by Surface Combustion Corp., Toledo, O., was installed together with dry coil after-cooling to hold these conditions.

Babcock Press Bought by Albert

Babcock Printing Press Corp., Canton, O., recently sold its \$5,000,000 assets to Sydney L. Albert, Akron industrialist, who is president of Bellanca Aircraft Corp. Mr. Albert bought Babcock from John F. Cuneo, president, Cuneo Press, Inc., Chicago, for an undisclosed sum.

Mr. Albert, who has interests in approximately 60 companies, will be chairman of the board of directors of the Canton company, which will become incorporated under Ohio law as Babcock Printing Press Co.

Charles W. Ginsberg, Babcock president, said present operating management and officers will be retained. The firm recently put into operation the largest rotogravure press in the world at Neo Gravure Co., Chicago. Mr. Ginsberg said Babcock will continue to build magazine presses for Cuneo Press and its associated companies. He said the company is now at work on six large magazine presses, all five-colors.

Vietinghoff Joins Chemco

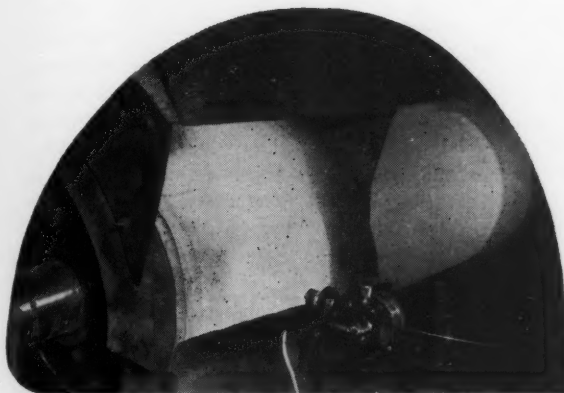
Chemco Photoproducts Company, Inc., Chicago, announced recently that Donald F. Vietinghoff has joined the sales organization as lithographic sales-technical representative. Mr. Vietinghoff was gallery foreman for 10 years at I. S. Berlin Press, Chicago. For the past three years he has been an instructor at the Chicago Lithographic Institute.

SAVE on press cylinders!

LOWER equipment costs!

WORN CYLINDERS RECONDITIONED GOOD AS NEW!

For the past twenty years, Arthur Tickle Engineering Works has specialized in reconditioning damaged printing press cylinders or cylinders that have been reground previously on the bodies and are too small in diameter.

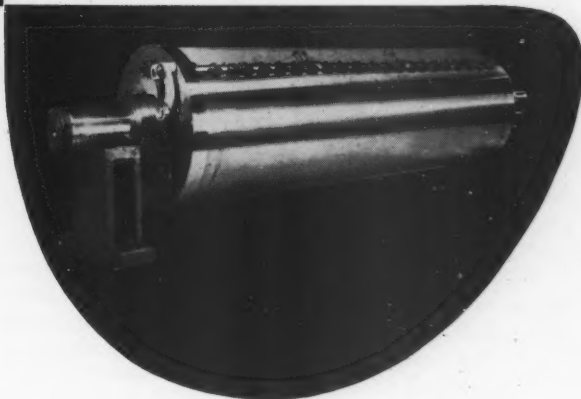


Spraying cylinder body with stainless steel.

Cylinders rebuilt by our process are more durable because of the increased hardness of the deposited metal! In addition, all cylinders, upon arrival, are further checked for size, condition of bearers and journals and body runout in order to eliminate unnecessary work or discover hidden sources of future trouble.

Cylinder journals, if scored or worn, are rebuilt with High Carbon Steel (363 Brinell hardness) and ground to standard diameter, with a resulting increase in the life of the cylinder!

Reconditioned Cylinder is fully inspected before delivery.



Write, Wire or Phone for Complete Details!

ARTHUR TICKLE ENGINEERING WORKS, INC.

21 Delevan Street • Brooklyn, 31, N. Y.

MAin 5-4200



Ideal Roller's Georgia Plant Begins Operation

Ideal Roller & Manufacturing Co., New York and Chicago, recently announced its new plant in Chamblee, Ga., has commenced full-scale operations in the manufacture, repair, regrounding and complete rebuilding of all types of lithographing, mechanical rollers and printing. The new factory is completely equipped to duplicate the sales and services offered by Ideal plants in Chicago, New York and Huntington Park, Cal., the company said.

Company officials have named John E. McStatts, graphic arts specialist, as manager. He has been with Ideal for four years.



The plant boasts its own transformer plus an extensive artificial illuminating system. Machinery for the removal of impurities from raw materials, and a special dusting apparatus are plant features. The plant's fabricating department is equipped with wrapping, roller building and tape winding machines. A general office and conference room in addition to private and factory offices are included in the building.

St. Regis, Rhinelander in Deal

St. Regis Paper Co., New York, last month confirmed an announcement by Rhinelander Paper Co., Rhinelander, Wis., that St. Regis intends to offer exchange of its common stock for Rhinelander common stock on a share for share basis.

The offer will follow a printed prospectus which will form part of registration statement required of St. Regis by the Securities and Exchange Commission. The offer will be made after the registration becomes effective.

Rhinelander's net sales for the fiscal year ending September, 1955, were \$21,643,880, with net earnings of \$1,628,975. Preliminary statement of St. Regis 1955 results showed net sales at approximately \$257,000,000 and net income in excess of \$19,000,000. St. Regis reported that if results of its recently acquired companies were included for the full year, net sales would have been in excess of \$287,000,000.

RCS Ltd. Honors 118 Employees

Rolph-Clark-Stone Ltd., Toronto, Ont., recently honored 118 employees for long service, at a special dinner. Total service represented close to 5,000 years of experience in the lithographing and fine printing industry.

Fourteen per cent of the firm's employees have over 25 years service. Of these, 37 have been associated with RCS over 35 years, 17 over 40 years and seven over 50 years. Alf Jones,

calendar sales division, was presented with a 50 year pin by pres. F.G. Rolph.

Eastern Colortype Dedication

A sheet of printing paper measuring 52 by 76 inches replaced the traditional ribbon at the dedication ceremonies of Eastern Colortype Corp., Clifton, N. J. early last month. Clifton mayor John Surgent cut the paper which was set up in front of the firm's five-color offset lithography press. Written on the paper was the message, "We're Introducing! Eastern Colortype Corporation—Fine Quality Lithography."

Also on hand for the ceremony were Leon Leighton, Jr., president and treasurer of Eastern; Bruce Bayne, vice president; D. Louis Tonti, executive director of the Garden State Parkway, representing New Jersey Governor Robert B. Meyner; and John L. Fitzgerald, city manager of Clifton.

Eastern was recently purchased by Mr. Leighton and Mr. Bayne.

William C. Smith, Bloomfield, N. J., the plant's oldest employee in length of service, was presented a \$100 U. S. Government Savings Bond by Mr. Bayne. Mr. Leighton paid tribute to the more than 400 employees of his plant.

Sommer Dies In Los Angeles

Walter E. Sommer, 60, a salesman for Schmidt Lithograph Co., Los Angeles, died Jan. 16 in Monte Sano Hospital. Mr. Sommer was with Schmidt for 33 years.

ATF Announces New Dealers

The entire type distribution system of American Type Founders, Elizabeth, N. J., has been reorganized and 43 authorized franchised dealers have been set up throughout the U. S. to sell ATF machinery. This supplements the machinery sales force in the company's 12 branches.

This was announced at a special luncheon meeting for the press, March 8, at the Engineers Club, New York, by Louis C. Edgar, Jr., president of the company, who disclosed a four-point program currently underway.

Along with the new distribution program ATF has continued its long established policy of constantly developing new type faces. Craw Clarendon and Murray Hill, two of its newest, were shown at the meeting.

Part two of the program revolves around an intensive product development research project. To meet the needs of commercial printers for higher speeds in offset printing ATF has produced the Green Hornet, a new web-fed commercial offset job press. This press is capable of producing up to 25,000 — 11 x 17 impressions per hour — two colors on one side or one color on each side.

Mr. Edgar said the third part of ATF's program is an extension of its already established policy of providing one-stop purchase service on equipment for printers. Continuing, he said ATF was appointed the exclusive distributor in the U. S. for the Tipmaster bindery machine and the Perf-A-Matic perforating machine in Oct., 1955.

In concluding, Mr. Edgar added that ATF, in addition to being the sole U.S. distributor for Mann's sheet-fed offset presses and offset perfecter presses, has become the exclusive U. S. distributor for Koenig & Bauer's presses. The agreement was signed March 1.

Printing Scholarship Awarded

George Von Hoffman, chairman of the board, Von Hoffman Press, Inc., St. Louis, recently presented a \$1,000 scholarship award to Byron G. Culver, Rochester Institute of Technology, at the company's annual Ben Franklin celebration held during National Printing Week in St. Louis.



MR. CARL R. SCHMIDT, President of the Schmidt Lithograph Company, San Francisco.

"The success of our business", points out Mr. Schmidt, "is based on giving the best possible lithography at the best possible value. Experience has taught us that the cost of using quality papers, inks, machines and craftsmanship is negligible compared with the superiority of the finished product."

FOR EXAMPLE: Your business stationery. Surveys by the National Stationers' and Office Equipment Association show that the paper constituting the average letterhead, envelope and file copy costs *less than a postage stamp*. This microscopic cost rises *less than 1%* of total correspondence costs when you entrust your letters—your *personal representatives*—to the highest-quality, most impressive, rag-content letter paper obtainable: **ADVANCE BOND**.

ANOTHER EXAMPLE: Your business records. Record paper averages *but 1%* of total accounting costs. This minute cost increases *less than 1%* when you select the most durable, permanent record paper made: **L. L. BROWN'S LINEN LEDGER**.

Thus at *practically no extra cost*, you can be sure of prestige-enhancing stationery and dependable records regardless of time and hard use. These *plus* values have characterized L. L. Brown papers for 106 years.

* * *

The foregoing facts are being advertised to buyers of letterheads, forms and records by means of persistent publicity in foremost business publications. Consumers—your customers—are being informed that they can get the right papers at little, if any, extra cost and

are being directed to their printers* for advice and suggestions about L. L. Brown papers.

This *constructive* selling prepares the way for your equally constructive service. It helps you to overcome price competition—makes it easier to recommend the *precise* grades best suited to *specific* uses—enables you to give *genuine* service—build *lasting* goodwill—get *repeat* business.

Additional hard-selling facts are available in the booklet "How to get Greater Service and Value from Your Records & Letters." For a free copy or copies, write: L. L. Brown Paper Company, Adams, Mass.

*Also lithographers, stationers and engravers.

Use L. L. BROWN PAPERS for RECORDS

NOTE: In the following list, A denotes new *white* cotton cuttings. B indicates new cotton cuttings.

L. L. BROWN'S LINEN LEDGER	
Permanent Record Paper	100% A
RESISTALL LINEN LEDGER*	100% A
FORWARD LINEN LEDGER	100% B
L. L. BROWN'S FINE	85% B
GREYLOCK LEDGER	75% B
ESCORT LEDGER	50% B
ESCORT MACHINE POSTING	50% B
RESISTALL INDEX BRISTOL*	100% A
ESCORT INDEX BRISTOL	50% B
L. L. BROWN'S LINEN	100% A

for CORRESPONDENCE

ADVANCE BOND	100% A
FORWARD BOND	100% B
L. L. BROWN'S FINE	85% B
GREYLOCK BOND	75% B
L. L. BROWN'S LINEN	100% A

Envelopes of the above to match

for SUPER RESISTANCE

RESISTALL LINEN LEDGER*	100% A
RESISTALL INDEX BRISTOL*	100% A

*The Resistall process is a special L. L. BROWN method of making paper resistant to water, oil and grease, many acids and alkalis, perspiration, freezing and boiling. Resistall papers, when soiled, can be sponged clean almost like celluloid. When immersed in water, they can be rubbed almost endlessly without becoming rough; their abrasive qualities are extraordinary. When soaking wet, the firm, hard surface still permits writing with pen and ink without pen point "digging in." In addition, Resistall papers are remarkably tough and strong, either wet or dry.

L. L. BROWN

Ledgers, Bonds, Index, Bristols, Linens

PAPERS

"SO MUCH
extra value



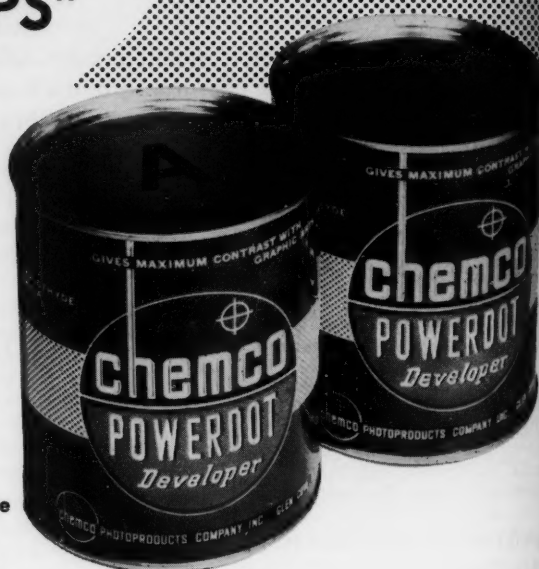
FOR SO LITTLE
extra cost."

CHEMCO'S POWERDOT DEVELOPER

*Once you try it,
you will buy it
for "KEEPS"*



- KEEPS** longer tray life — less dropoff, fewer bath changes per shift
- KEEPS** working faster — develops more film, with perfect results, hour after hour
- KEEPS** higher contrast — finer highlight dots and line resolution
- KEEPS** uniformity — exposures are more constant, saves camera adjustment and development time
- KEEPS** dots firmer — for sharper etching
- KEEPS** production high — and costs down
- KEEPS** users happy — with dependable performance



CHEMCO POWERDOT is the most modern of all formaldehyde-type developers. Produced through Chemco research, it is manufactured according to patented formulas. Easy to mix, it is faster, gives more contrast and has longer tray life.

To prove it's best, make the Powerdot test. Ask your Chemco representative for a demonstration in your shop or, better still, order now from the nearest Chemco warehouse.

chemco

PHOTOPRODUCTS COMPANY, INC. GLEN COVE, N. Y.
ATLANTA BOSTON CHICAGO DALLAS DETROIT NEW ORLEANS NEW YORK

THE 65" CONSOLIDATED RPM CUTTER



available for
immediate
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THE SAFEST and MOST PRODUCTIVE CUTTER in the World

**INSTANTANEOUS ELECTRONIC CLUTCH
GUARANTEES SAFETY**

**SUPER-SENSITIVE PRESSURE BAR
CLAMPS PROTECT STOCK**

**CENTRALIZED LUBRICATING CUTS
NON-CHARGEABLE TIME**

**DOUBLE ELECTRIC EYE INSURES
FOOL-PROOF SAFETY ACTION**

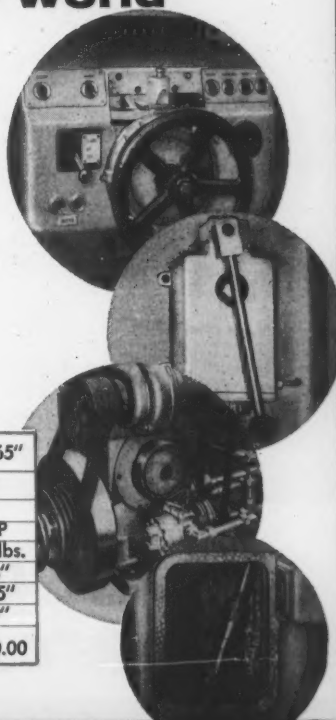
**HEAVY DUTY PULL-BARS ARE
CONVENIENTLY ACCESSIBLE**

**FULLY AUTOMATIC CONTROLS
FOR EVERY OPERATION**

The Consolidated RPM Cutter is recognized as the most modern of all cutting machines and has been acclaimed by its users as being the smoothest—safest, and easiest operating cutter in the field. Little wonder that cutter manufacturers are racing to improve their equipment to meet the highest quality standards established by the RPM Cutter.

The Consolidated RPM Cutter is a complete cutter, having all of the latest in safety; time saving and every feature required in a Cutter. Why buy half a cutter, with half the advantages when you get the most complete cutter — The CONSOLIDATED RPM, for less.

MODELS	R.P.M. 32"	R.P.M. 41"	R.P.M. 51"	R.P.M. 65"
Cutting Length	32"	41"	51"	65"
Pile height	4"	5½"	5½"	5"
Motor equipment	3 HP	4 HP	5.5 HP	7.5 HP
Weight of machine	2,980 lbs.	5,725 lbs.	7,050 lbs.	13,640 lbs.
Width	5 ft. 4"	7 ft. 3"	8 ft. 1"	9 ft. 8"
Length	5 ft. 11"	6 ft. 7"	7 ft. 8"	10 ft. 5"
Height	4 ft. 7"	5 ft. 2"	5 ft. 2"	5 ft. 9"
Price	\$3,750.00	\$6,750.00	\$7,950.00	\$18,950.00



CONSOLIDATED *International Equipment and Supply Company*

GENERAL OFFICES AND PLANT:

1112 NORTH HOMAN AVENUE, CHICAGO 51, ILLINOIS

BRANCH
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NEW YORK 1, NEW YORK

1190 BENNINGTON STREET
EAST BOSTON 28, MASSACHUSETTS

1220 MAPLE AVENUE
LOS ANGELES 15, CALIFORNIA

NOW YOU CAN FURNISH ACTUAL PRESS PROOF

**FULLY AUTOMATIC DAMPENING & INKING of COM
PRESS ENABLES YOU to OFFER YOUR CUSTOMER HIS**



in sizes to fit every need

Type	Plate Size	Length	Width	Net. Wt.	Gross Wt.
1 C	17" x 22"	10' 6"	4' 3"	4,190	4,840
2 C	25" x 36"	12' 2"	5' 3"	6,250	7,705
3 C	32" x 45"	14' 3"	5' 11"	9,250	11,150
4 C	36" x 50"	17' 5"	7' 10"	13,230	15,430
5 C	40" x 56"	18' 5"	8' 2"	14,180	16,420

THE CONSOLIDATED MAILANDER OFFSET PR *FAST ENOUGH FOR PROFITABLE PRESS RUNS!*

Precision engineered for high quality proofing that can duplicate actual press conditions, these presses, with automatic inking and dampening, are very practical for short commercial runs on paper, wood,

metal sheets, glass, plastic and other materials. For complete versatility, ease of operation, economy and efficiency in the shop, the Consolidated Mailander is, invariably, the choice of proofing experts.

YOUR CUSTOMERS WITH OF ALL OFFSET PLATES.!

of CONSOLIDATED - MAILANDER OFFSET PROOF -
ON THIS OUTSTANDING COMPETITIVE ADVANTAGE !

Type "C"
automatic inking
and dampening

Now it is possible to offer your customers accurate press proofs with every plate job. This new, revolutionary proof press is equipped with fully automatic dampeners, inking rollers, and wash unit. It is so efficient that an offset plate can be locked up, registered and proofed, all in a matter of a few minutes. Several minutes more is all that is required for wash-up time, and a second, third, fourth or more, colors can be proofed in an amazingly short time . . . at an amazingly low cost.

THREE BIG, NEW ADVANTAGES for your customer !

1. A sparkling color press proof, printed on YOUR CUSTOMER'S paper with HIS ink, exactly as if it had come from the production press. An "O.K." can now really mean "O.K."
2. An offset plate that your customer KNOWS is right. No more expensive DOWN time with presses waiting for remakes, no more exasperating attempts to register plates that won't register and flaws that pop up between the camera and printing plate.
3. Furnish your customer his first production run of sample proofs — 50 — 100 — 250 copies. They are economical and practical to run. Save expensive makeready and press time so that pressroom can schedule their work for production only, and not hold presses open while proofing. It's low cost insurance to furnish color proofs under actual press conditions with every plate job.

Have it proofed on a Consolidated Mailander
Automatic Proof Press

SET PROOFING PRESS.. *the world's finest*

VS! Also Available in Hand-Model Type A and Power-Cylinder Type B

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NEW YORK 1, NEW YORK

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EAST BOSTON 28, MASSACHUSETTS

1220 MAPLE AVENUE
LOS ANGELES 15, CALIFORNIA

THE CONSOLIDATED PEARL OFFSET PRESS ... THE HIT OF THE SHOW FOR

1956



Standing left to right, Herb Borden of Hub Offset Printing, proud owner of two Consolidated Pearl presses, just placing his order for two of the new 1956 Models. Operating the press is Miss Printing Week of New England. Smiling is Marti Ross, New York Sales Manager of Consolidated International and, pleased with the Show is Benjamin Sugarman, President of Consolidated International Equipment & Supply Company.

NOW.. in addition to its many exclusive, outstanding features, the Consolidated Pearl offset press offers vacuum sheet control and the new non-stop delivery mechanism which enables this press to print **8000 sheets per hour continuously . . . without stops!**

With faster make-ready and many new safety and quality control features, the Pearl is now delivered complete with internal wiring.

The swing-arm feed assures the highest degree of accuracy in register at top speeds while impressions are conveniently controlled by outside adjustments on the transfer, plate and impression cylinders.

All form rollers are adjustable from the outside

while running and all other rollers seat in correct position automatically.

Printers at the Exhibit saw two-color brochures being printed at 8,000 sheets an hour with exact perfect register by the new photronic-electronic sheet control. Acclaimed by everyone as "the press of the year," and many years to come!!!! Write us and let us show you how to produce more in less time . . . How to produce it better with less effort, and how to be more competitive!

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OFFICES:

330 WEST 26TH STREET
NEW YORK 1, NEW YORK

1190 BENNINGTON STREET
EAST BOSTON 28, MASS.

1220 MAPLE AVENUE
LOS ANGELES 16, CALIF.

Letters to the Editor

Dear Sir:

We are considering putting out a four or eight page house organ which will cover tips to buyers of printing to be sent to all of our customers and prospective customers. During the past year I recall reading several articles in your magazine which concern the experiences of outfits that have been putting out similar publications. I recall especially one article referring to a Philadelphia firm that started out with a four page house organ and has now increased it to 12 pages.

We would be very grateful if you would send us any recent issues of your magazine which contain this type of information, especially that article relative to the Philadelphia firm.

As a subscriber to your magazine we would like to take this opportunity to let you know we think you are doing a wonderful job in covering the latest developments in the offset field.

Any information that you can send us to use in our direct mail campaign will be appreciated.

A. F. MARSH, *president*
Colorcraft Corporation,
Solon, O.

Tear sheets of two articles on this subject have been sent.—Editor.

Dear Sir:

In the *Modern Lithography*, November, 1955, the article "Dry Coatings Applied on Paper by New Electrostatic Process" (Mr. R. B. Reif) is very interesting. As it would undoubtedly interest even the Finnish circles of graphic arts which have not had a possibility to read your journal, I take the liberty to inquire would you allow me to translate it and make it public in a Finnish journal of graphic arts?

As there is plenty of valuable knowledge within the lithographic field also in other issues of your journal, I would like to know is it allowed to translate and publish quotations without asking a permit for every single article? The name of the *Modern Lithography* as well as the name of the author of the article would, of course, always be mentioned.

L. SILVENNOINEN,
Banknote Printing Office
of the Bank of Finland,
Helsinki

We are happy to grant you permission to translate our article "Dry Coatings Applied on Paper by New Electrostatic Process" for publication in one of the Finnish graphic arts journals.

In the future you may feel free to translate any articles from Modern Lithography, which you would think

would be of interest in your country. Of course, credit to Modern Lithography as well as the author of the articles is expected.

Dear Sir:

The writer is in a corner—and needs a little help from you.

Here in our office a discussion seems to be going on concerning the difference between Multilith and Lithography. Every now and then the word "Planography" also creeps into the picture.

Can you tell me, please, what is the difference between these three operations—particularly between Multilith and Lithography?

So far as I know, there is no difference between Multilith and Lithography—except in the capacity of the equipment—lithography being of greater capacity and flexibility. As I gather, Multilith is a smaller press that is somewhat devoid of the wide possibilities of the lithographic press.

I would appreciate it if somebody who likes to kick things like this in the slats would sit down and bare his heart and give me the score. Maybe we can put an end to all this discussion about these two culprits.

Thank you so, so much.

E. R. BARKLEY,
Vice President, Sales
Beaver Pipe Tools, Inc.,
Warren, O.

Maybe we can help straighten you out. First of all, "planography" is a term that is used to distinguish lithography from letterpress ("raised") and gravure ("relief") printing. Strictly speaking, the term is inaccurate, because the image on an offset plate is not exactly even with the non-image area. The word has found wide acceptance, however, because it is useful in distinguishing between the major processes.

Secondly, we can tell you that you are almost right in your concept of lithography. Lithography is the general term that is applied to work done by the offset (now almost entirely photo-offset) process. It includes big presses and little, with no fixed rule about size. Multilith is the trade name of a small offset press manufactured by Addressograph-Multigraph Corp. It is capable of handling up to 10 x 14" using either a paper or an aluminum plate for the printing surface. This company also makes a Multigraph machine which is used widely for reproducing letters, imprinting, etc. It utilizes a ribbon, much like a typewriter,

and a revolving drum. This is NOT an offset-press.

The Davidon Corp., a subsidiary of Mergenthaler Linotype Corp., also makes a small offset press. The smaller models handle sheet sizes from 3 x 5" to 10 x 14", while the larger size will take a sheet up to 14 x 17½". It can be used in a variety of ways; for offset printing, dry offset, letterpress or relief, and it can print on both sides of the sheet at once, if necessary. This press, known as the Daulith, works on a two-cylinder principle, with the plate and impression cylinders combined on one large cylinder. The Multilith, on the other hand, operates on the conventional three cylinder (plate, impression and blanket) principle.

The Lithographic Technical Foundation, in its volume "Lithographic Offset Press Operating," has this to say about the subject:

"Offset duplicators started out as office machines using the offset principle. They are extremely simple and the making of the plates is possible by various easy methods. The usual size is about 10 x 14", suitable for simple office forms. These machines have developed into rather efficient offset presses and are filling many demands for which they were not originally designed. In many instances they are being used for multicolor work and larger sizes are being built. The gap that exists between 'duplicators' and the more heavily built offset presses is being filled by some new presses. These have the simplicity of the duplicator plus many of the quality features of the larger presses."

LTF

(Continued from Page 56)

Chicago, were elected to fill the unexpired terms of Carroll D. Blanchard and I. S. Preston, who had resigned.

Other officers elected for 1956 are Andrew Donaldson Jr., vice president; W. F. Cornell, treasurer; and B. S. Rosenstadt, secretary. The executive committee includes Z. Wayne Adams, Mr. Brinkman, Mr. Donaldson, Jr., Mr. Kindred, Mr. Rosenstadt and Elmer Voigt. Serving on the finance committee are Mr. Cornell, Mr. Kindred and Carl N. Reed.★





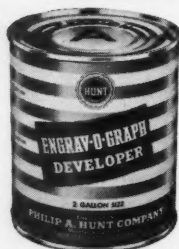
*"Our platemaker
hasn't asked me for a
makeover since I
switched to
**Hunt ENGRAV-O-GRAPH®
Developer**"*

You can always recognize an Engrav-O-Graph halftone by its distinct, sharply defined dot formation and absence of halation.

You'll find that with Engrav-O-Graph, makeovers are a rarity. That your work is easier, faster, more productive, because its maximum contrast developing properties remain for its entire tray life.

Test it for those hard clean dots—the mark of a perfect halftone. Test it for its absence of halation. Test it and you'll find too that Engrav-O-Graph halftones can be dot-etched with no risk of sudden "graying-out."

Only you can be the final judge on the quality of Engrav-O-Graph negatives. Order a trial carton from any Hunt Branch. Do it today.



Hunt ENGRAV-O-GRAPH Developer
comes in cartons of:

12— 2 gal. sets 1—25 gal. set
4—10 gal. sets 1—50 gal. set.



Manufacturing
Chemists



Established
1909

PHILIP A. HUNT COMPANY

PALISADES PARK, N. J.

Chicago • Cleveland • Cambridge • Brooklyn • Atlanta • Dallas • Los Angeles • San Francisco

Big Spenders For Outdoor Ads

The 100 largest users of outdoor advertising spent \$93,422,641 in the medium in 1955. These figures were revealed Feb. 20 in the second annual listing of the top 100 outdoor advertisers compiled by Outdoor Advertising Inc. General Motors Corp. led the list with a total expenditure of \$10,228,365.15. Following is a partial list of the top advertisers:

(1.) General Motors Corp.	\$10,228,365.15
(2.) Ford Motor Co.	6,665,796.95
(3.) Distillers Corp.—Seagram	3,653,674.53
(4.) Jos. Schlitz Brewing Co.	3,395,598.00
(5.) Coca-Cola Co.	3,192,000.14
(6.) Anheuser-Busch, Inc.	3,130,852.76
(7.) Shell Oil Co.	2,481,865.05
(8.) Schenley Industries, Inc.	2,446,889.70
(9.) General Foods Corp.	1,890,322.40
(10.) Gulf Oil Corp.	1,878,112.94
(11.) Wm. Wrigley, Jr. Co.	1,692,555.15
(12.) Falstaff Brewing Corp.	1,655,990.20
(13.) American Oil Co.	1,569,640.03
(14.) Chrysler Corp.	1,565,239.62
(15.) Liebmman Breweries, Inc.	1,490,976.17

Entries Close, Judging Begins

Entries for the 6th Lithographic Awards Competition & Exhibit closed Feb. 24. Judging of the entries was scheduled to begin during the week of March 5 at the New York Trade School. Thirty-six of the nation's leading designers, advertising production and art directors and lithographic experts, who have volunteered their services, were slated to begin selection of the finest offset-lithography produced in the U.S. and Canada.

The panel of judges received their final instructions on judging procedure in the Awards Competition at a luncheon-meeting Feb. 14 at the Lotos Club, New York. Henry Turnbull, Compton Advertising, Inc., New York was appointed general chairman of the judges' panel.

Clark Promotes Anniversary Tray

J. L. Clark Manufacturing Co., Rockford, Ill., is promoting its 50th anniversary gift tray, which received top award in the metal lithography classification in the 5th Awards Competition. The tray was lithographed

with a front page of *The Rockford Daily Register-Gazette*. The back of the tray contains the LNA Award certificate in full color.

Litho Film Shown By Club

Cesar P. DaCorta, Spaulding-Moss Co., Boston, presented a color film on lithography at the second meeting, Feb. 15, of the newly formed Advertising Production Club, at Hotel Vendome, Boston. George Franklin, Clark-Franklin Press, Boston, spoke on printing estimating.

TAGA Meeting May 7-9

Plans have been completed to hold the Technical Association of the Graphic Arts meeting in Chicago, May 7-9 at the Edgewater Beach Hotel. Visits to the following plants have been planned by the local committee: A. B. Dick & Co., Armour Research Foundation, Rand McNally & Co.; W. F. Hall Printing Co., The Meyercord Co., Miehle Printing Press & Mfg. Co. and Lithographic Technical Foundation's research laboratories.

"Watercote"

COLOR PROOFS

Save

COSTLY PLATES

A COLOR PROVING METHOD ON OPAQUE WHITE VINYL

- **FAST**
The fastest, most inexpensive way to prove a color job before costly plates are made. Editing and customer approval, easy detection of errors at the negative stage, eliminate "make-over" hazards.
- **LOW COST**
The cost of the pre-plate, pre-press proving is so low that it can be absorbed in any color job, large or small, as the cheapest insurance against mistakes. Several small proofs can be "ganged up" on a 24" x 30" sheet for less than \$8.00.
- **CUSTOMER APPROVAL**
The customer can see in advance an exact duplicate of what the finished job will be. The print is "photographically" sharp. All colors are clear and potent.

YOU can make
a 4 color proof
24" x 30" for only
\$7.50

KIT CONTAINS
2 sheets of "Loftrite" #30—
24" x 30" x .010"
4 eight-ounce cans of emulsion
(Yellow, Red, Blue and Black)
Plus simple directions. Easy to follow.
All for \$7.50

Write for **FREE CATALOG**

We will gladly give you a demonstration of our "Watercote" color proving method in our lab. at your convenience and without obligation.

If you have a particular color problem, write our research lab. about it. We will be pleased to give you our suggestions.

DIRECT
REPRODUCTION CORPORATION

811 UNION STREET BROOKLYN 15, NEW YORK

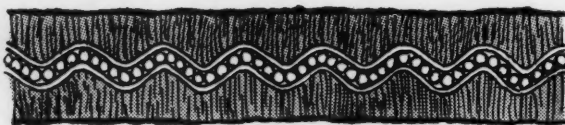
NO other Dampener Cover WORKS like

TRI-MOL[®] (THREE-PLY IMPORTED MOLLETON)

with the EXCLUSIVE new

HIDDEN RESERVOIR

The AMAZING 3rd PLY
that ends common
dampener troubles



why TRI-MOL'S hidden reservoir makes this the best cover ever!

TRI-MOL		SEAMLESS TUBING	ORDINARY 2 PLY MOLLETON
EXTRA PLY	ANCHORS THE OUTER PLY TO PREVENT STRETCHING	STRETCHES	STRETCHES
EXTRA PLY	HAS MORE THREADS PER SQ. IN., KEEPING THE OUTER MOLLETON SOFTER ... LONGER	GETS HARD	GETS HARD
EXTRA PLY	RETAINS OUTSIDE DIAMETER TO HOLD DAMPENER SETTING LONGER	LOSES DIAMETER	LOSES DIAMETER
EXTRA PLY	PREVENTS BAGGING OR PRESSURE BULGING	BAGS & BULGES	BAGS & BULGES
EXTRA PLY	HOLDS WATER FOR MORE UNIFORM DISTRIBUTION	UNEVEN DISTRIBUTION	UNEVEN DISTRIBUTION

now that we've shown you why TRI-MOL is best—

PROVE IT TO YOURSELF!

WRITE FOR

FREE COMPARISON TEST

AND CHECK IT FOR THE ABOVE ADVANTAGES

ROLL-O-GRAPHIC CORP.



DEPT ML 3

133 PRINCE STREET, N. Y. C.

EXCLUSIVE MANUFACTURER OF TRI-MOL
COVERS FOR EVERY OFFSET PRESS

TRI-MOL Dampener COVERS

are made to fit all size presses

FREE PICKUP AND DELIVERY

in New York Metropolitan area

REMEMBER—YOU OWE IT TO YOUR PRESSES TO TRY TRI-MOL

Oppose Langer, Siler Bills

Norton B. Jackson, executive director of The Point-of-Purchase Advertising Institute, Inc. went on record before two hearings of Senate and House Committees on Interstate and Foreign Commerce in Washington, D. C., Feb. 17 as opposing the Siler Bill H.R. 4627 and Langer Bill S. 923. The bills are identical and have been introduced to prohibit the transportation in interstate commerce of all forms of alcoholic beverage advertising.

Mr. Jackson pointed out that "passage of the Siler Bill would have a disastrous effect on the point-of-purchase advertising industry and the varied industries with which we are allied, including lithography, paper, ink, plastic, wire and many others."

The previous day George Link, Jr., general counsel for the American Association of Advertising Agencies, told the Senate Committee on Interstate and Foreign Commerce that the Langer Bill would, in effect, prohibit interstate advertising for alcoholic beverages and thus discriminate against advertising as a form of selling for a lawful product. He pointed out that were the bill passed it would violate "a historic principle in the U. S. that any product or service which is lawful under U. S. law to be sold may be legally advertised."

Direct Mail Sales Up

The Direct Mail Advertising Association reported Feb. 23 that the estimated dollar volume of direct mail advertising used by American business in 1955 was \$1,485,262,000. This is a record high for money spent on direct mail advertising and a 7.3 per cent increase over the 1954 figure of \$1,374,883,000 which had been the top direct mail year.

Lithographers Incorporate

O. E. Saunders & Sons, Inc., New York, has been granted charter of incorporation listing capital stock of \$200,000.

Creative Lithography, Inc., New York City has been granted charter

of incorporation listing capital stock of 100 shares no par value.

Hed Lithographing Company, Inc., Rochester, has been granted charter of incorporation listing capital stock of 200 shares no par value.

Lithographers' Finishing Co., Inc., New York City, has been granted charter of incorporation listing capital stock of 200 shares no par value.

Repro Finishers, Inc., New York, has been granted charter of incorporation listing capital stock of 200 shares no par value.

Parsons Co. Forms Club

Parsons Paper Co., Holyoke, Mass., recently announced formation of an informal club for persons in the U. S. who are striving to produce fine printing. Named the Parsons King Cotton Club the objective is to help maintain the fine craftsmanship on which the graphic arts industry has been built. Anyone interested in joining the club during its charter year may apply to Parsons Paper Co., Holyoke, Mass.

Display certificates are presented to members who submit specimens.

THE WINNAH! & STILL CHAMPION!

The ORIGINAL 1-STEP WASH-UP

*With the secret weapon!**

Enjoy top performance of YOUR Rollers and Blankets with Wash R228

- IN USE OVER 4 YEARS • GIVES VELVETY SURFACE
- REMOVES GLAZE • POWER - PACKED
- CUTS WASH-UP AND DOWN-TIME more than 50%
- PENETRATES INTO THE PORES

MAKES COLOR CHANGES • FASTER • EASIER

SAFE! NON-TOXIC!! NON-EXPLOSIVE!!!

***"THE SECRET WEAPON"....RESILIUM** (exclusive with ANCHOR)
restores natural bounce & traction

PACKED: 1 & 5 gal. cans; 30 & 55 gal. drums Try it on Money-back Guarantee!

WRITE DEPT. RWM for free literature, "Roller Care"

ANCHOR CHEMICAL CO., INC.

"SOLUTIONS FOR GRAPHIC ARTS PROBLEMS"

829 BERGEN ST. BROOKLYN 38, N.Y. MAin 2-8006

Institute's Forum Sept. 10-12

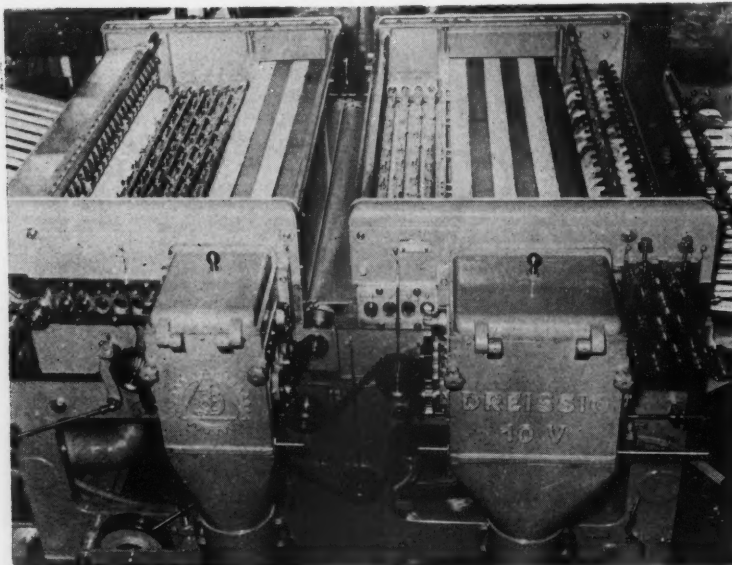
Packaging Institute, New York, announced last month it will conduct its 13th annual forum Sept. 10-12 at Hotel Statler, Cleveland. The Institute also announced the appointment of Frank S. Child as technical assistant and editor of *The Packet*. Mr. Child was managing editor of *Drug and Cosmetic Industry* before joining the Institute's staff Jan. 16.

Proceedings of last year's forum are now available, the Institute said, in four separate volumes at \$3.50 per

volume. Included are 57 technical papers delivered by packaging specialists.

Hub Offset Changes Location

Hub Offset Co., Boston, recently moved from its two-floor plant at 175 Purchase St. to a one-floor, 6,000 sq. ft. plant at 77 N. Washington St. Major printing operations began in the new plant Feb. 15. New equipment installed includes two Pearl offset presses and a Multilith press.



The Heavy Duty Flat Bronzing and Dusting Machine DREISSIG KOMBI 10 V

- The KOMBI 10 V combines one Bronzing Machine and one Dusting Machine on a common base. This combined machine is thus extremely space-saving, particularly for those large scale printing shops where the work is continuously going on in several shifts and where, according to experiences, two bronzers used to be connected, one behind the other, to obtain higher production rates.
- In the KOMBI 10 V type construction a space provided between the two machines prevents the bronze powder in suspension in the Bronzer from being carried over to the Dusting Machine. Ten burnishers, ten dusting bands and four dusting-off rollers account for intensive burnishing and really dependable front and back dusting. A special bronze application device, system "Muller," for which patents are pending, saves about 30 to 40 percent of bronze powder, eliminates all danger of transfer of printed parts to other sheets, and avoids whirling up of dust.
- The operator may lower or raise all burnishes evenly and at one time. The Dressig Bronzer can take a sheet size 52" x 76".

Write Today for Free Descriptive Literature

HENRY P. KORN

5 Beekman Street

Phone: REctor 2-5808

New York 38, N. Y.



"Success Story" By Crocker

Richard Kauffman (r.) executive vice president of the H. S. Crocker Co., San Bruno, Cal. is interviewed on Richfield Oil Co.'s "Success Story" program by Bob Day. At left, camera operator Bob Miller adjusts lens in demonstrating camera work in Crocker's lithographic production.

Crocker was the Printing Week feature in the "Success Story" series. The program gave a live demonstration on how lithographic printing is produced in Crocker's modern plant.

LNA To Offer Fire Insurance Plan

Lithographers National Association, Inc., New York, announced last month it will soon present to members a new group fire insurance program, including both property damage and use and occupancy coverage. The exclusive insurance program for LNA members will offer substantial benefits and savings to members, it was said.

Under investigation and close study for a year, the new program has received the unanimous endorsement of LNA's Cost, Accounting and Financial Management committee, the Ways and Means committee, the Executive committee and the Board of Directors.

This is the first plan of its kind, it was said, ever to be offered by a national trade group. The program was devised in collaboration with Betterley Associates and Blackstone Mutual Insurance Co., a member of the Factory Mutual Association. A pilot study of nine LNA member plants revealed that, in some instances, the savings under the group plan could equal or exceed their Association dues.

Other major advantages offered by the group plan are: equivalent dollar amount of insurance at less than present cost; increased dollar amount of coverage at the same or less than present cost; a border insurance form; protection against under-insurance by reason of fluctuating values and the elimination of co-insurance liability.

It's Amazing... the time saved with

ALUM-O-LITH

(the double duty presensitized plate)



Lithography is a long way from the "stone" age. Everything has speeded up to keep pace with the demands of modern printing buyers. Every year they ask for better quality, lower costs and, to top it all, they want it done "yesterday"!

ALUM-O-LITH "double duty" plates are helping many progressive lithographers meet those ever increasing demands. Processing has been simplified to minutes, quality is better than ever before and they've helped that cost problem, too, by sensitizing both sides so you get **twice** as many jobs from each plate!

Their unsurpassed versatility and unmatched performance make them the ideal printing medium for every job... every press... every shop. You'll be time and money ahead the day you switch to ALUM-O-LITH, the "double duty" presensitized plate! We'll be glad to show you positive proof of these claims, just fill in the coupon below.

ALUM-O-LITH

the double duty plate®

Manufactured by Lithoplate, Inc.,
Subsidiary of HARRIS-SEYBOLD CO.

Mail This Coupon Today!

LITHOPLATE, INC.

278 Arden Dr., El Monte, California

"M"

- ☐ Send me further information about ALUM-O-LITH "double duty" plates.
- ☐ Arrange for a demonstration in my shop.

NAME _____ FIRM _____

ADDRESS _____

CITY _____ ZONE _____ STATE _____

Rapid Roller Names Dowd Mgr.



been with Rapid Roller for more than ten years.

Rapid Roller Co., Chicago, recently named Thomas Dowd, Holyoke, Mass., as Northeastern manager of the company. He will formulate and direct the sales policy for New York, New England and Canada. Mr. Dowd has

Chester H. Pope Dies

Chester H. Pope, 70, president, Pope & Gray, Inc., Clifton, N. J. printing ink firm, died March 5 at Overlook Hospital, Summit, N. J. Mr. Pope resided at Short Hills, N. J.

S&V Appoints Downing

William J. Downing, Sinclair & Valentine, was recently appointed assistant general sales manager of the firm, it was announced by H. J. Soriano, vice president and general sales manager. Mr. Downing will be responsible for carrying out the firm's national sales policies, in working with specific sales problems and in the coordination of branch sales effort.

Panel Discussion at Meeting

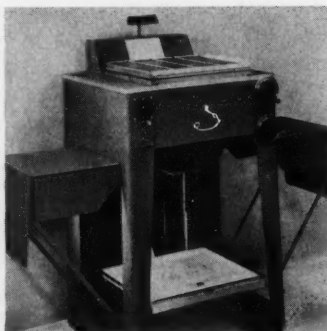
Dallas Litho Club held its March meeting at Fleming & Sons and was host to W. O. Morgan, N. A. L. C. president.

A panel session on the running of cardboard was conducted by John Fleming, Jr., Fleming & Sons; Bill Spears, American Printing & Poster; Grady Elliott, Sinclair & Valentine and Aubrey Henderson, Acme-Dallas. Following the panel discussion a tour of the Fleming plant was conducted.

Diecutting Press Installed

Display Die Cutting Co., Inc., New York, announced Feb. 27 the installation of a new Bobst automatic diecutting press doubling the firm's productive capacity. Additional floor space has been taken for mounting, diecutting and hand finishing operations

NEW EQUIPMENT - SUPPLIES - BULLETINS



New Vertical Camera

Kenro Graphics, Inc., Chatham, N. J., has designed a new vertical camera which incorporates accuracy of modern process cameras with simplicity of operation and compactness. The heart of the Kenro Vertical "18" is a specially developed Goerz flat-field, process lens which enlarges up to 300 per cent and reduces the 17" x 22" copyboard area to 1/3 size.

The camera is only 48" high, fits against any wall, and can be operated inside or outside a darkroom. The basic unit includes Goerz lens, glass covered copyboard, stay-flat and pressure

back film holder, automatic reset timer, lamps and micro-dial size focus setting mechanism.

ATF is U.S. Agent for Koenig

Louis C. Edgar, Jr., president, American Type Founders Co., Inc., Elizabeth, N. J., and Dr. Hans Bolza, managing director of Koenig & Bauer, Western Germany, signed an agreement March 8 making American solely responsible for the sale and servicing of Koenig's complete line of sheet-fed and web-fed printing presses and equipment in the U.S. The Elizabeth firm will also handle Koenig's line of stereotype-making equipment.

Lithoprint Displays Equipment

Lithoprint Co., New York, recently held open house for printing buyers in the metropolitan area. Herman King, president, and Hans King, vice president, showed guests the new Miller M. A. N. 30 x 42 IV two-color and 36 x 48 V single-color offset presses.

which gives the firm two plants in the city.

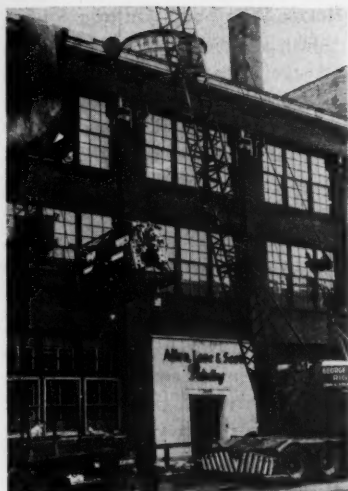
W. W. Davidson Dies

William W. Davidson Sr., founder and former president of the Davidson Corp., and developer of equipment widely used in the letterpress and offset printing fields, died in New York, March 2. Mr. Davidson established his company in Madison, Wis. in 1916. He was president from 1916 until 1939 when he became chairman of the board. Davidson Corp. is now a sub-

sidiary of Mergenthaler Linotype Co., Brooklyn.

Sales Aids Show June 11-13

The third annual National Sales Aid Show will be held June 11-13 at Hotel Statler, New York. More than 100 exhibits are scheduled for the show, sponsored by the Advertising Trades Institute. The latest advancements and uses of visual aids, displays, equipment, advertising specialties, graphic arts supplies, sales presentations and allied services will be shown.



Installation Hazards Overcome

The installation of this new Miehle 61 single color offset press was an unusual one at the plant of Allen, Lane & Scott, Philadelphia. The press had to be hoisted in units and brought in through a third floor window. The entire rigging operation was completed without disrupting pressroom production or traffic. This is the second Miehle 61 for Allen.

Equipment at Business Show

A variety of products for the graphic arts industry were exhibited at the Business Equipment Show, held in Chicago last month. Harris-Seybold Co., Cleveland, featured an exhibit of its presensitized sheet aluminum "sensi-plates"; Minnesota Mining & Mfg. Co. showed its line of 3M photo-offset plates and Ozalid div., General Aniline & Film Corp. demonstrated production of Ozalith offset plates.

Office offset presses were shown by Addressograph - Multigraph Corp., A. B. Dick Co., Ditto, Inc. and E. G. Ryan & Co. Robertson-Photo Mechanix, Inc., Chicago, introduced its new "Dial-A-Copy" automatic offset camera.

New Hand Perforator

F. P. Rosback Co. has introduced a new 12" Hand Perforator which supersedes the former 10" model. The new 12" machine weighs 38 lbs., as contrasted to the 75 lb. weight of the former 10" unit.

3-M Has New Tape Dispenser

Minnesota Mining and Manufacturing Co., St. Paul, announced last month a new dispenser for finger-tip use of pressure-sensitive tape. Called the M-73 Scotch brand bracket dispenser, the unit has been designed to accommodate most of the more than 300 types of Scotch brand pressure-sensitive tape in widths up to one inch.

Colitho Offers New Catalog

Colitho Division, Columbia Ribbon & Carbon Mfg. Co., Inc., Glen Cove, N. Y., announced last month a new catalog of Colitho offset duplicating plates and supplies. The three-color book is a complete reference guide to

all offset plates and supplies in the Colitho line.

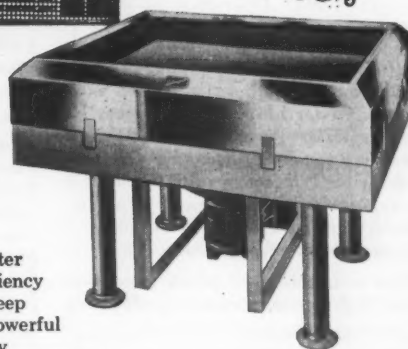
Colitho manufactures a line of direct image paper plates, sensitized paper, acetate and metal plates, negative and positive, plus offset preparation and duplicating supplies.

New Kodachrome Soon

Technicolor Motion Picture Corp., Hollywood, announced last month that 35mm Kodachrome processing by Technicolor is expected to be available to the amateur photographer in May. Technicolor previously announced its entry into the field of color lithography through the formation of a graphic arts division. (See M L Feb.)



with the
**BROWN
DOWN DRAFT
TABLE...**



● Increase production for greater profits by working at peak efficiency at all times when processing deep etch or multi-metal plates. A powerful exhaust fan, 5000 c.f.m., quickly draws out hazardous fumes and objectionable odors that formerly filled the entire plate room when using the old-fashioned, obsolete type table. Slate island working area and all metal parts are completely protected from destructive liquids. Stainless steel top jacket is removable to permit access to the gutter on all four sides of the table. Write for your **FREE** catalog of complete Brown photomechanical equipment.

SIZES

31 x 39
42 x 50
52 x 64
60 x 80



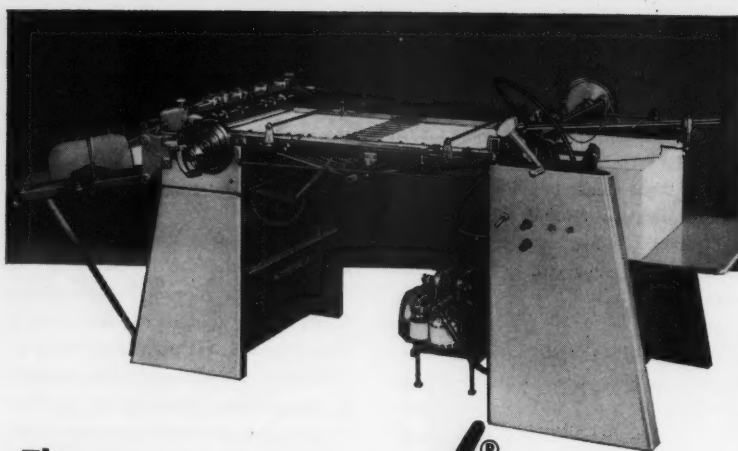
• DEALERS IN ALL PRINCIPAL CITIES



W. A. BROWN

MANUFACTURING COMPANY

608 SOUTH DEARBORN STREET • CHICAGO 5, ILLINOIS



The Rosback®

Automatic Slot Perforating Machine

incorporates BOTH feeder and perforator

Now, for the first time, you can secure a fully automatic slot perforating unit which includes both perforator and automatic feeder built in its entirety by one manufacturer. With this Rosback machine, you are assured *complete responsibility* for satisfactory operation from a single source, because perforator and feeder have been designed and built as a team for most efficient production.

Here is a perforator which guarantees you high speed, accurate perforating

with high speed automatic feeding for profitable volume output.

A few of the important innovations which are incorporated in the Rosback Automatic Slot Perforating Machine are detailed in the box below. Compare your needs with these unusual advantages—you'll find your answer for meeting today's demands for accurate, high-speed slot perforating. For complete information, write for specification sheet or see your Rosback dealer.

OPERATING ADVANTAGES

Two sizes—30" and 36".

Speed—up to 12,000 per hour.

Feed Table accommodates 24" pile.

Handles stock from 9# manifold to post card weight. Minimum sheet size 6"x6".

Patented pile elevating mechanism extremely sensitive. One adjustment compensates for thick and thin stocks.

Safety disconnect switch stops feeder if pile is exhausted.

Double pump—one for vacuum, one for pressure. Vacuum and pressure regulated independently.

All air controls and stop-start switches directly in front of operator.

Special vacuum valve enables operator to switch quickly from strike to continuous perforating.

Tape section equipped with micrometer side adjustment and simple tape-tension adjustment.

Extension delivery and automatic jogger available as optional extra.

F. P. ROSBACK COMPANY • Benton Harbor, Mich.

WORLD'S LARGEST MANUFACTURERS OF PERFORATORS,
WIRE STITCHERS AND PAPER PUNCHING MACHINES

Harris Distributes Cutting Stick

Harris-Seybold Co., Cleveland, has taken over national distribution of a new plastic cutting stick for paper cutting machines, according to a recent announcement by Paul H. Schaffer, Special Products division manager.

The new type of cutting stick is made by Cefaly Experimental Co., Brentwood, Md., and is called the "Seybold-Cefaly Stick." It is machined and planed to tolerances of .001 inch. The plastic is flexible, odorless, non-toxic and flame-resistant. Uniform density and give of the special plastic keeps expensive knives used in paper cutting machines sharp much longer.

Four-Color Gift Cartons

Stanley Home Products, Inc., Westfield, Mass., has introduced new four-color gift cartons designed to slip over standard product boxes. The cartons are manufactured by The Lord Baltimore Press using its Fidel-I-Tone process, which employs a 175-line screen.

The cartons have a pictorial decoration showing a traditional American scene, houses and farms, dogs and horses, and men, women and children dressed in the style of days gone by. The packages carry no company or product identification, to make them more appealing to gift givers.

Intertype Releases New Bulletin

Intertype Corporation, Brooklyn, recently published a bulletin "Visilite Magazines for Intertype Line Casting Machines." The bulletin illustrates the entire line of Visilite magazines which include full-length, three-quarter split, half split lengths and corresponding stubs in both the 90 and 72 channel types. Visilite magazines are standard equipment on all Intertype line casting and Fotosetter machines.

Plan Scanner Installation

Printing Developments, Inc., New York, a Time-Life, Inc. subsidiary, announced it plans to install one of its color scanners in San Francisco this summer. Karl Hoffman will supervise installation of the equipment.

PPT Now in Pocket Edition

The Callaway Associates, Inc., Boston, announced recently that it has published a pocket-size edition of William Bond Wheelwright's "Practical Paper Technology". This basic paper textbook proved so popular when first published in 1951 that the first edition and two reprints were out of print by Dec. 1955.

A 14-page supplement, "A Quiz Test On Paper," containing 144 questions, has been added for individual students, or trainee classes.

Lawson Offers New Spacer Cutter

E. P. Lawson Co., New York, announced last month it is adding a 39" automatic spacer cutter to its line. The new cutter is incorporating the V-65 electronic spacer. This is the first of several new machines being developed by the company to meet specialized cutting needs, according to D. W. Schulkind, president.

Chatfield Is New Distributor

Appointment of the Chatfield Paper Corp., Cincinnati, as a new distributor was announced recently by Marshal M. H. Dana, sales manager of New York and Pennsylvania Paper Co., New York. The new distributorship joins Chatfield's network of affiliates in the South and Midwest.

Fotosetter Display At Conf.

Book work, job work and newspaper composition produced by Intertype Fotosetter were on display at the California Conference of Typographical Unions held recently in Berkeley, Cal. Intertype representatives Ralph Guileri and Roy Brasher showed films of Fotosetter operations.

Peak 1955 Profits Reported

The nation's two biggest can manufacturers recently reported record sales and earnings for 1955. American Can Co. had net earnings of \$35,989,700 after taxes and all charges, according to the preliminary report issued by William C. Stolk, president.

Continental Can Co. reported net earnings of \$24,172,218 for 1955, an increase of 16.6 per cent over 1954.

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D. F. Keller Co., Chicago, recently installed a Miehle 38 two-color offset press. Checking the operation of the new press are (l.-r.) Howard Keller, president; W. J. McWilliams, Miehle Chicago mgr., and Lester F. Olson, foreman.



Steve Podany, supt. and Martin Podany, president, Martin Podany Associates, Inc., Minneapolis, check the first job to come off their new Miller-M.A.N. 36 x 48 V three-color offset press, the first of its kind to be installed in the U. S.

New Equipment Installations

American Type Founders Co., Inc.

John Hancock Mutual Life Insurance Co., Boston, ATF C Kelly Letterpress; Spencer Press, Inc., Boston, ATF Super Chief Offset Press; Speed-O-Lite Offset Co., New York, ATF Chief 20 Offset Press; Eaton Paper Corp., Pittsfield, Mass., C Kelly Letterpress; Revere Press, Inc., Philadelphia, ATF Model #241 Craftsman Camera; Sid Linder Co., New York, Chief 29 Offset Press; Direct Mail Service, Inc., Pittsburgh, Pa., Chief 22 Offset Press; Cosmo Printing Co., New York, Chief 22 Offset Press; Hampshire Press, Inc., Rockville Centre, N. Y., Super Chief Offset Press; Terminal Printing & Litho Co., Hoboken, N. J., Mann L-242 Offset Press; Checkmaster, Inc., New York, ATF Chief 20 Offset Press; Skilcraft Printing Co., Inc., New York, Big Chief 29 Offset Press; Time, Inc., 9 Rockefeller Plaza, New York, ATF Little Chief 20 Offset Press; Pro Art Publications Co., Westbury, N. Y., ATF Chief 20 Offset Press.

Harris-Seybold Co.

Tucker Printing & Litho Co., San Jose, Calif., Harris 17½x22½" single-color offset press, Model LTV; Looart Studio Press, Inc., Colorado Springs, Colo., Harris 17½x22½" single-color offset press, Model LTV; Bond Press, Inc., Hartford, Conn., Harris 23x36" single-color offset press, Model LTN; Kellogg & Bulkeley Div. Conn. Printers, Inc., Hartford, Conn., Harris 23x36" single-color offset press, Model LTN; Brooklyn Cooperage Co., Versailles, Conn., Seybold "Saber" 47" autospace cutter, Model S-47; The Bristol Co., Waterbury, Conn., Seybold 34" Dynaclamp, full automatic clamp cutter, Model CHB; William N. Cann, Inc., Wilmington, Del., Harris 23x36" single-color offset press, Model LTN; Berman-Lipton Co., Atlanta, Ga., Seybold 34" Dynaclamp, full automatic clamp cutter, Model CHB; Claxton Printing Co., Atlanta, Ga., Seybold 34" Dynaclamp, full automatic clamp cutter, Model CHB; G. J. Aigner Co., Chicago, Ill., Seybold "Saber" 47" power back gauge cutter, Model P-47;

American Bank Note Co., Chicago, Ill., 2 Harris 23x30" single-color offset presses, Model LTW's; Chicago Offset Printing Co., Chicago, Ill., Harris 43x59" four-color offset press, Model LTM; DeLuxe Check Printers, Inc., Chicago, Ill., Harris 14½x20½" single-color offset press, Model LUH; Edwards & Deutsch Lithographic Co., Chicago, Ill., Harris 52½x77" four-color offset press, Model LTZ; Logan Printing Co., Peoria, Ill., Harris 23x36" two-color offset press, Model LTP; Krieger-Ragsdale & Co., Inc., Evansville 8, Ind., Harris 17½x22½" single-color offset press, Model LTV; McArthur Ruling Co., Indianapolis, Ind., Seybold "Saber" 47" autospace cutter, Model S-47; The Jenner Co., Inc., Louisville, Ky., Seybold "Saber" 41" cutter, Model 41; Kentucky Ballfour Co., Louisville, Ky., Seybold "Saber" 41" cutter, Model 41; Printing Service, Inc., Detroit, Mich., Harris 17½x22½" single-color offset press, Model LTV; Kalamazoo Label Co., Kalamazoo, Mich., Seybold 34" Dynaclamp, full automatic clamp cutter, Model CHB; Atcord Lithographing Co., Englewood, N. J., Harris 23x36" two-color offset press, Model LTP; Hall Printing & Binding Co., Inc., Binghamton, N. Y., Seybold "Saber" 41" power back gauge cutter, Model P-41; The Holling Press, Inc., Buffalo, Harris 25x38" two-color offset press, Model LUB; Manhardt Printing, Inc., Buffalo, Harris 17½x22½" single-color offset press, Model LTV; Central Printing Co., Inc., New York, Seybold "Saber" 47" power back gauge cutter, Model P-47; Circle Press, Inc., New York, Harris 23x36" two-color offset press, Model LTP; General Reproductions, Inc., New York, Harris 17½x22½" single-color offset press Model LTV; Meehan Tooker Co., New York, Harris 52½x77" two-color offset press, Model LTY; Harbor Hill Litho Corp., Roslyn, N. Y., Harris 23x36" single-color offset press, Model LTN; The Mawua Co., Schenectady 1, N. Y., Harris 23x36" single-color offset press, Model LTN; Dodge-Graphic Press, Utica 2, N. Y., Harris 23x30" single-color offset press, Model LTW; Ken G.

Dunn, Co., New Bern, N. C., Harris 23x30" single-color offset press, Model LTW-FR; The Royal McBee Corp., McBee Division, Athens, Ohio, Seybold "Saber" 47" power back gauge cutter, Model P-47; The Central Lithograph Co., Cleveland, Harris 43x59" two-color offset press, Model LTL; Lehigh Lithographing, Inc., Bethlehem, Pa., Harris 17½x22½" single-color offset press, Model LTV; Lebanon Valley Offset Co., Inc., Cleona, Penna., Harris 23x36" two-color offset press, Model LTP; Erie Printing Co., Erie, Pa., Harris 17½x22½" single-color offset press, Model LTV; Basset Press & Mailing Co., Pittsburgh, Seybold "Saber" 47" power back gauge cutter, Model P-47; Carnegie Library of Pittsburgh, Pittsburgh, Seybold 34" Dynaclamp, full automatic clamp cutter, Model CHB; Livermore & Knight Co., Pawtucket, R. I., Harris 52½x77" single-color offset press, Model LTX; Ranson & Ranson, Memphis Tenn., Seybold 34" Dynaclamp, full automatic clamp cutter, Model CHB; Brooks Paper Co., Dallas, Texas, Seybold "Saber" 54" cutter, Model 54; Houghton Publishing Co., Inc., P. O. Box 7985, Dallas, Texas, Harris 17½x22½" single-color offset press, Model LTV; Bulman Bros. B. C. Lithographing & Printing Co., Vancouver, British Columbia, Harris 43x59" two-color offset press, Model LTL; Beckford Lithographers Ltd., Toronto, Ont., Can., Harris 43x59" four-color offset press, Model LTM; Lawson Litho & Folding Box Co., Ltd., Montreal, Quebec, Can., Harris 43x59" two-color offset press, Model LTL.

E. P. Lawson Co.

F. W. Orth Co., Cuyahoga Falls, Ohio, 46" Lawson series V-65 hydraulic clamp cutter; Minnesota Mining & Manufacturing Co., St. Paul 5, Minn., 55" Lawson series V-65 electronic spacer cutter; The Franklin Bindery, Inc., Chicago, Ill., Lawson series "B" 3-knife rapid trimmer; Zellerbach Company, Chicago, Ill., 52" Lawson series V-65 hydraulic spacer cutter; John D. Ellis Bindery, Inc., Dallas, Texas, Lawson

multiple-head drill; Eastern Corporation, South Brewer, Me., Lawson multiple-head drill; H. A. Trautman & Co., Inc., Mineola, L. I., N. Y., Lawson multiple-head drill; Baltimore Salesbook Co., Baltimore 29, Md., Lawson multiple-head drill-Lawson series V-65 electronic spacer cutter; Rochester Envelope Co., Rochester, 46" Lawson series V-65 hydraulic clamp cutter; Atlas Lithographing Co., Pittsburgh, 52" Lawson series V-65 electronic spacer cutter; Henry N. Sawyer Co., Boston, 39" Lawson cutter; Lenz & Riecker, New York, Lawson series "B" 3-knife rapid trimmer; Bay State Bindery, Inc., Boston, Lawson series "B" 3-knife rapid trimmer; Universal Pad & Tablet Corp., Newark, 52" Lawson series V-65 hydraulic clamp cutter.

Miehle Printing Press & Mfg. Co.

Charles Wood & Associates, San Francisco; 38 two-color Miehle offset press; James H. Barry Co., San Francisco; 38 two-color Miehle offset press; D. F. Keller Co., Chicago, 38 two-color Miehle offset press; Max Stern's Sons Co., Chicago, Miehle 38 two-color offset press;

Rutherford Machinery Co.

Greiner-Fifield Lithographing Co., Kansas City, Rutherford Precision Photo Composing Machine; Type JWDA Rutherford Plate Whirler, Type GRP Rutherford Vacuum Printing Frame. International Business Machines Corp., Kingston, N. Y. Type KPP-24 x 32" Rutherford Offset Color Proving Press.

McLaurin Has New Label Line

McLaurin-Jones Co., Brookfield, Mass., announced Feb. 7 that they are now manufacturing a complete line of label papers. To acquaint paper merchants and printers with their complete label line, the company is devoting an expanded advertising campaign to M-J label papers. The firm is also preparing an attractive label sample book covering all the basic label stocks in their line. These books, to be offered to printers and dealers, will carry information on printability of various surfaces, inks to use for best results, and gummings for various surfaces.

AnSCO Offers High-Speed Film

Robert M. Dunn, acting general sales manager, AnSCO, Binghamton, N.Y., announced recently that the new high-speed AnSCOchrome color transparency sheet film, released earlier in very limited quantities, is now available throughout the U.S. in normal supply.

According to AnSCO, AnSCOchrome is the first new high-speed color

transparency film to be supplied for sheet film cameras. The new film, it was said, will simplify medical, scientific and technical photographs in full color. AnSCOchrome has color curve conformity, which renders pictures either uniformly lighter with overexposure or uniformly darker with underexposure. There is no shift in the color balance.

Two New Books by Delmar

Delmar Publishers Inc., Albany, New York, recently announced two new publications: "Printing Layout & Design," and "Practical Problems in Mathematics Printing Trades." The former is a basic instructional piece for layout men and printing designers, while the latter was developed to meet the needs of printing students in related mathematics.

Graphic Arts Meetings Held

A series of meetings on the "Analysis of Production and Cost" began in St. Louis Feb. 20 for members of the graphic arts. Edward Gossel, Blackwell Wielandy Co., is chairman.

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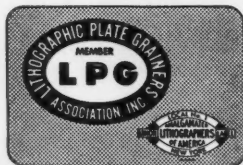
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COLLOIDS

(Continued from Page 78)

ions are formed during the exposure than can be bonded immediately to the colloid, or (2) that the ions formed during exposure must have time to migrate to a suitable position with respect to the colloid molecule, or (3) the exposed bichromate ion is raised to an excited state at which it can remain several minutes before reacting with the colloid.

The last phase of the cycle, the short period of resistance decrease following the continuing reaction, might be explained by the bichromated albumin film undergoing syneresis after reaching a certain concentration of reduced bichromate or chromic ions. Observations made at the Lithographic Technical Foundation showed that syneresis follows gelation of solutions of bichromated albumin.

Another point of interest in the photochemical reaction of bichromates is the fact that they might be in part acting as optical sensitizers for colloids in reactions requiring ultraviolet light. Many colloids such as albumin and gelatin can actually be insolubilized by exposure to ultraviolet light. Galinsky⁴ reported an experiment in which a bichromated gelatin solution exposed to visible wave lengths of light and precipitated with acetone gave insoluble ash-free gelatin containing no chromium. One way this could be explained was that the bichromate was acting as an optical sensitizer for the gelatin in a reaction which would otherwise require ultraviolet light.

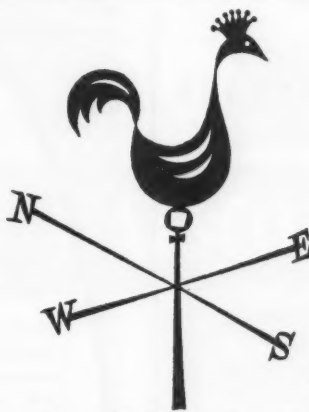
Sensitometry of Bichromated Colloids

Hardy and Perrin⁵ studied the sensitivity of bichromated gelatin films and measured their tone reproduction characteristics; that is, the ability of bichromated gelatin coatings to reproduce tone values. Their work was concerned primarily with dyed images in continuous-tone. Their results were applicable in part to conventional gravure but not to processes using halftones such as photo-engraving and lithography.

In the halftone processes the tone reproduction characteristics are primarily embodied in the halftone transparency itself. But variations in exposure or coating sensitivity can change these tone reproduction characteristics to some degree when the halftone is exposed onto the printing plate. This variation is due to the fact that the dots in a half-tone transparency have a density gradient at their edges, and the coating sensitivity or exposure determines how much of this

gradient is reproduced in the dots in the plate image.

In order to determine how much of the density gradient is reproduced on the plate, some method of measuring the coating sensitivity is necessary. Reed and Dorst⁶ developed two methods which gave a criterion or index of the coating sensitivity. Their methods, however, were not suited for use in plant practice. In an effort to modify the Reed and Dorst method, Jorgensen⁷ developed a method of



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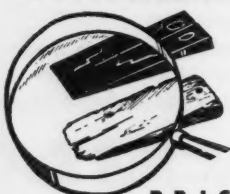
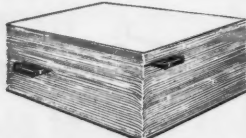
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In this method, the coating sensitivity is determined by giving the coating a graduated series of exposures, using a transparent gray scale as the exposure modulator. The least exposure necessary to produce a visible ink deposit on the plate after being processed in the conventional manner is taken as the "threshold" speed. This method is applicable to both photo-engraving and photo-lithography and has since been developed into a method of controlling or standardizing tone reproduction and exposures of plates in the platemaking departments of plants⁸.

As pointed out above, variations in the sensitivity of bichromated colloid plate coatings are due primarily to changes in the amount of dark and continuing reaction. The effect of dark reaction on sensitivity is that it submarginally tans or hardens the colloid so that less light exposure is required to complete the hardening for the final image. Of course, if the dark reaction is allowed to progress too far, the solubility differential between the exposed and unexposed areas becomes so small that a satisfactory image can not be developed. Figure 2 shows the

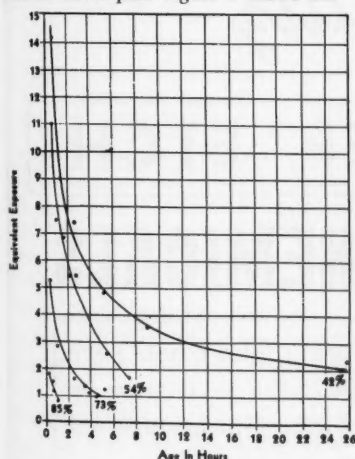


Fig. 2. Effect of dark reaction on the exposure necessary to produce equivalent images at 42, 54, 73, and 85 per cent RH at 78° F. Albumin coatings on untreated bare zinc plates.

effect of relative humidity on dark reaction. This figure shows how the amount of light exposure necessary to produce the same amount of hardening in an albumin image decreases when the coating is allowed to age in the dark at 42, 54, 73, and 85 percent

relative humidity. Albumin, gelatin, and similar colloids absorb water from the atmosphere, the amount absorbed being a function of the relative humidity. These curves show that the greater the moisture content of the bichromate film, the faster the dark reaction rate, and correspondingly, the less exposure required to produce the same degree of hardening (the equivalent exposure).

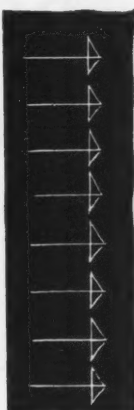
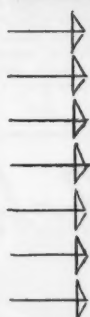
The continuing reaction begins when the plate exposure stops and continues for about one hour afterwards depending on the relative hu-

midity. Figure 3 shows a comparison of the change in sensitivity of bichromated albumin coatings on ageing. The upper curve shows the amount of light necessary to produce a given amount of hardening if the exposure is given at the start of the ageing period. The fact that the two curves are almost parallel can be correlated with the conductivity changes described in the previous section.

The effect of these variations in sensitivity on the tone reproduction characteristics of the plate is shown in Figure 4 for deep-etch lithographic

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plates. If a certain exposure of the halftone transparency gives straight-line tone reproduction of the original on the press sheet, a change in coat-

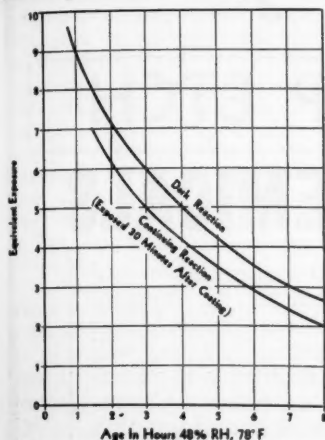


Fig. 3. Comparison of the effects of dark and continuing reaction on the exposure of zinc albumin plates at 48 per cent RH.

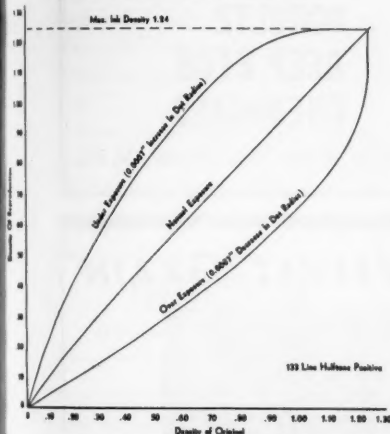


Fig. 4. The calculated effect of change of dot size on the reproduction of a deep-etch plate. Curves show the change in printing densities due to over and underexposure of the halftone dots as compared to the densities given by an exposure chosen as normal or standard.

ing sensitivity which causes the same amount of exposure to increase or decrease the halftone dot radius 0.0007 inch, appreciably distorts the tone reproduction on the press sheet. The fact that the sensitivity of bichromated colloids is constantly changing due to dark and continuing reactions, is a serious handicap to their use in photomechanical processes.

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PHILA. LITHO CLUB

(Continued from Page 89)

added, from the floor, that calcium chloride in a small area of the press room can help take moisture out of the air.)

Q: I have trouble shooting blue bourges overlays.

Kahoun: Blue is always hardest to shoot, but it can be done on panchromatic

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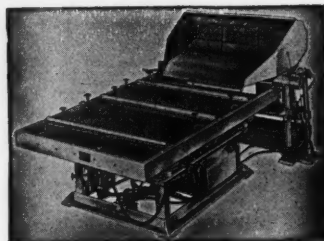
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film with a red filter or orthochromatic film with a yellow filter. Former is advised.

Q: How can I test inks before putting the job on press?

Garrick: In many ways. Test color with proof press; emulsification can be tested on whirling blender; tack and trapping with simple finger tapping test.

Q: My press runs well early in the day, but I often have to change the settings in the afternoon. Why?

Hughes: Continuous running of the press can change the settings. Ink may begin to set on the rollers, slowing down the flow; humidity, electrical current, can change, etc.

Q: How much can print length be increased by changing packing?

Hughes: Maximum change is $\frac{1}{2}$ of one percent of the circumference of any cylinder. On a 50" cylinder it would be roughly $\frac{1}{4}$ ".

President J. Leonard Starkey, Edward Stern & Co., praised William Weiss for his work on the trade exhibit displayed during Printing Week and announced that it had been put on display permanently in Franklin Institute.

Albert A. Materazzi, technical representative of Litho Chemical & Supply Co., will discuss all kinds of litho plates at the March 26 meeting.

PRESENSITIZED

(Continued from Page 47)

man to maintain a fine ink-water balance and gives him a fighting chance to hold open fine shadow detail.

The processing of FotoPlates is very simple, requiring an exposure time about the same as a whirler-coated casein plate. To be more specific, the No. 6 step on the Gray scale is correct.

After exposure, a developing ink is applied. Here again the developer is very similar to the ink used on whirler-coated plates, the only difference being that it contains no lacquer or asphaltum. Lacquer would attack the plastic printing surface and give an all-over tint. We find that asphaltum has a tendency to smear and drag in the shadow areas during developing. The developing ink does not have to be rubbed down or fanned dry. After the application of the developer, the plate is washed, using a damp cotton swab, and the operation is carried out on a

table top in order to keep the back as dry as possible.

The only other step is to desensitize, using one ounce of 14 Baume' gum in four ounces of water. Any of the gums used in the lithographic trade may be used. The purpose of this desensitizing step is not to protect the non-printing areas; rather, if the light-sensitive material is not entirely removed, it would dry down and re-expose. The mixing of the gum with the remaining light-sensitive materials kills its action so that it cannot re-expose in the daylight or under a fluorescent lamp.

Because the plate is .012" thick, a minimum of packing is required on the press. You do not have to bend the clamp edges of the plate because it can be very easily slipped into the clamps with the flat of the hand. Press settings are about the same as for other presensitized plates, that is, slightly underpacked, up to .0145" rather than .015". The fountain solutions may remain the same as with conventional plates, and regular inks may be used. Of course, as with any presensitized plates, the more fluid type inks give the longer run. Actually, we tell the pressmen when we demonstrate the plates to forget what the basic material is and run it the same as they would any metal plate.

We find that we arrive at a salable sheet a lot faster than with grained plates and somewhat faster than with presensitized metals. Using the correct exposure and using the same negatives as a comparison, we believe the quality of print obtained from FotoPlates equals — and in most cases betters — any other plate using the negative process.★

PRODUCTION CLINIC

(Continued from Page 64)

give the image a new surface with an affinity for ink.

Streaks

Q: Enclosed you will find a printed sheet with a light streak across the far end of the solid. No matter how large a solid we print, the streak appears only in one place. The streak appears less prominently when we run opaque

inks. Will you kindly tell me what causes this streak?

A: The light streak on the sheet you submitted looks as though it may have been caused by unbalanced cylinder diameters. Judging by the location of the streak, I would say that the blanket cylinder was perhaps overpacked, which would cause the blanket to creep toward the black edge. This would result in a streak at the maximum point of stress. In other words, the pressure between the blanket and either plate or impression cylinder has a pushing effect on the surface of the blanket, and when it reaches a certain point, the blanket snaps back, causing a light streak on the printed sheet.

I would suggest that you pack the cylinder to equal diameters, and set them closer to the bearers.

I assume that you are troubled with this streak on all kinds of paper stock. If not, the foregoing may be of no help. It is generally known that when printing on a hard surface stock such as you submitted, every little press defect will show. In order to determine whether or not the press is at fault, I would recommend that you try printing on offset paper.★

PHOTO CLINIC

(Continued from Page 66)

perature meter. To measure the intensity of light, a good photographic exposure meter can be used for relative values, although specialized instruments such as the Weston Foot Candle Meter (614) are more versatile and accurate.

An exposure meter particularly suitable for intensity measurements is the G. E., Model DW-68. With the hood removed and a suitable multiplying mask in place, the exposure meter becomes a foot candle meter.

When using the light meter, check the edges, corners and center of the copyboard. If necessary, adjust the angle and the distance of the arc lamps until the readings at all points of the copyboard are equal. When this is so, the intensity of the illumination is uniform. Now repeat the measurements, this time using a color temperature meter (the Kelvix is a suit-

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The book points up the general similarity of handling of the various presses, at the same time explaining the special characteristics of each. Primary objective of the book is to acquaint the reader with the precision and care that is required in handling offset presses, and to demonstrate how to obtain trouble-free operation.

In addition to the specific treatment on presses, there is a section on blankets, papers, inks, rollers, plates, fountain solutions, and other materials used by offset lithography.

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able instrument). If the readings are not the same at all points measured, this would indicate that the arc lamps are not operating at the same color temperature. To correct this may require repair or adjustment of the lamps. When you have obtained the same intensity readings and identical color temperature values at all points on the copyboard you can be sure the illumination is uniform in all respects.★

COLOR STRIPPING

(Continued from Page 54)

fully than when intended for the vacuum frame. If the stripping is on glass, the center-marks must normally be within one-eighth inch of the glass centers to permit registration in the negative holder. The glass used must be square, flat and to correct dimensions. The edges and corners of the glass usually are rough ground, but some negative holders require a beveled edge to match their clamps. The subject detail on the glass flat must be at least one-half inch or one inch in from all edges depending on the negative holder in which it is used.

Because the stripped up flat is used repeatedly in step-and-repeat work, the exposures will heat it up considerably. Vinyl based flats may warm up above their softening point of about 140°F, and distort badly. Stripfilm has a thin emulsion. When it is stripped emulsion-side up, it may be punctured on vacuum contact by specks of graining sand or other foreign matter on the pressplate. This defect will then be repeated on all later exposures. As a precaution, the entire stripped up flat can be covered with a protective varnish or collodion coating that is flowed or carefully brushed over its surface.

Since considerable stripping is applied emulsion side down for better adherence, this condition may permit dot undercutting in exposure. This is particularly true on step-and-repeat machines where the printing lamp is close to the negative or positive. The arc lamp reflector also directs oblique rays towards the image and so increases the undercutting. If this con-

dition is troublesome, the only corrective measures that can normally be made would be to increase the arc lamp distance or blacken the sides of the reflector. The exposure time must then be increased to compensate for the reduced light.

Where dimensional accuracy is required, none of the plastic materials can be depended on because of their high temperature coefficient of expansion. Stripping must then be applied to glass.

The comparative ease with which several components of a printing subject may be combined together in platemaking by double or multiple printing on the step-and-repeat machine enables the stripper to simplify the preparation of close fitting jobs. However, if the subject is to be repeated a number of times, the high hourly cost of machine time may make it advisable to combine the subjects on one dry plate or film, using contact or double-printing methods.★

LITHO BLANKETS

(Continued from Page 67)

he asserted. He said the latter often will soften the blanket. He added that gasoline is "one of the worst solvents there is, because of the fire hazard."

Q: What about washes which the manufacturer claims have restorative value?

Mr. G: These are generally slow drying solvents for removing dried ink. They can be quite helpful if used sparingly, about once a week, he believes. A good blanket wash test, according to the speaker, is this: If the wash dries on a piece of paper in from 1/2 to 1 1/2 minutes, it is acceptable.

Q: What bearing do pigments have on workability of a blanket?

Mr. G: Probably none, unless there is something in the toner that will soften a blanket.

Q: In normal use, how many impressions can be expected from a blanket?

Mr. G: With regular offset stock, about a million. "Most blankets aren't worn out, but smashed." ★

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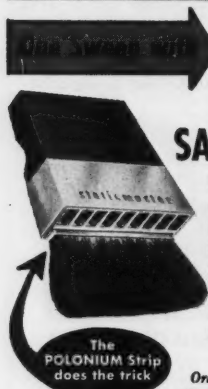
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TECH. BRIEFS

(Continued from Page 83)

cycle of operation, and to maintain said ductor roll in rolling contact with said fountain roll for a selected period of time during any one cycle of operation so that said ductor roll is in rolling contact with a selected segment of said portions in relief on said fountain roll.

Graphic Arts—General

KEEPING AN INDUSTRY IN STEP WITH PROGRESS. Dr. Marvin C. Rogers. *Photo-Engravers Bulletin* 45, No. 4, November, 1955, pp. 141-173 (33 pages). An introductory address by Dr. Marvin C. Rogers followed by a transcript of the panel discussion. The panel included M. H. Bruno of LTF, K. Famulener of Ansco, L. E. Goda, Jr. of Eastman Kodak, Dr. S. W. Levine of Fairchild Graphic Equipment, Inc., and H. E. Swayze of Dow Chemical.

MAKING SILK SCREEN PLATES WITH SENSITIZED SCREENS. Victor Strauss. *Inland Printer* 136, No. 1, October, 1955, pp. 51, 78 (2 pages). This article describes the technique of making photographic screen printing plates like offset, light-sensitive mixture applied to screen, exposed and developed and transfer methods preferred for most screen process printing jobs.

ATOMIC ENERGY IN THE GRAPHIC ARTS. Dr. John R. Bradford. *American Pressman* 65, No. 11, October, 1955, pp. 50, 52 (2 pages). Application of atomic energy to the Graphic Arts may be classified into three main categories: (1) the utilization of radioactive materials as tracers (2) the use of gauges employing radioactivity and (3) the radioactive static eliminator. By far the greatest use is under (3), but examples are given under (1) which include application to studies of film thickness (ink), printability and ink transfer as a function of paper and printing variables, studies on the mechanism of wetting, desensitization, and surface treatment of offset plates, studies on ink distribution on offset presses during operation and detection of dye migration. Under (2) the primary application has been in measurement of paper thickness.

AN EXPERIMENTAL REVERSAL COLLOTYPE PROCESS. P. C. Smethurst. *Science and Applications of Photography, Proceedings of the R.P.S. Centenary Conference, London, 1953.* The Royal Photographic Society of Great Britain, Publishers, 1955, pp. 526-528 (3 pages). A tentative exploration of alternative colotype techniques lead to the investigation of a direct reversal process giving a positive colotype image from a positive. The basic idea is the formation of a superficially hardened gelatin layer, capable of reticulation, in which the hardening can be destroyed by light action. Essential conditions relating to hardening are that it should be superficial and slight, while it must not restrict the ability of the bulk of the layer to over-swell. A technique based on the controlled diffusion of solutions into gel-

atin was developed in which a sensitizer consisting of an organic ferric salt in water and alcohol was used. The sensitizing time is controlled and limited by the use of a suitable "stop" solution. The possibility of the development of this laboratory technique on a commercial scale is considered.

INTAGLIO HALFTONE. J. S. Mertle. *Science and Applications of Photography, Proceedings of the R.P.S. Centenary Conference, London, 1953.* The Royal Photographic Society of Great Britain, Publishers, 1955, pp. 529-534 (6 pages). The paper deals with methods of gravure reproduction in which halftone instead of continuous tone positives are employed for the production of intaglio printing cylinders and plates. The basic principle of the procedure can be traced to the method patented in 1852 by the pioneering Fox Talbot, this process in turn leading to the Talbot-Klic method of grain photogravure. The first commercial application of intaglio halftone for newspaper printing (1910) was by Edward Mertens, and since then numerous methods have been introduced, the most widely used being that invented by Arthur Dultgen. A Brief review is given of the development of intaglio halftone, with mention made of methods now before the trade. The practical advantages and disadvantages of the procedure are outlined, together with remarks on the special platemaking equipment required for some of the processes, and the eventual role intaglio half-

tone may play in the rapidly growing field of rotogravure printing.

NEW SENSITIVE LAYERS FOR SCIENTIFIC USE. J. Sivadjan. *Science and Applications of Photography, Proceedings of the R.P.S. Centenary Conference, London, 1953.* The Royal Photographic Society of Great Britain, Publishers, 1955, pp. 245-249 (5 pages). The author describes new sensitive materials. The first is sensitive to light and to water or humidity and allows numerous applications in physiology, meteorology, agriculture, analytical chemistry, etc. The second allows the detection of thermic effects, e. g., of ultrasonic waves. The paper describes the preparations, composition and properties of these materials.

AIR CONDITIONING; WAYS OF CONTROLLING ATMOSPHERIC CONDITIONS IN PRINTING PLANTS. Francis A. Westbrook. *Printing Equipment Engineer* 85, No. 10, July, August, 1955, 60, 61, 84-6; *Bulletin of the Institute of Paper Chemistry* 26, No. 1, September, 1955, p. 5. Following a brief introduction on the reasons for the need of air conditioning in printing plants, the author describes installations involving either humidification or dehumidification units (the latter including chemical dehumidifiers), and complete air-conditioning systems. More and more printing plants specify that the paper be shipped to them with the proper moisture content, so that an increasing number of mills are installing humidity control in their finishing rooms. 9 illustrations.



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SPLCORP is recommended as the only dimensionally stable substitute for glass, when Stripping Positives or Negatives for Multi Color Work, if close registration is desired. A few advantages enjoyed by the Lithographic Craftsman when using SPLCORP sheets are: Easy Handling, Increased Production, Job Assurance, No Breakage and No Storage Problems.

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Help Wanted:

PREMIUM HELP WANTED: Fully qualified and experienced Dot Etcher for high quality multicolor work. Permanent situation, premium pay, no layoff. Largest plant in Pacific Northwest, where there is room to live, and living is a pleasure. Address Box 44, c/o Modern Lithography.

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COMMERCIAL ARTIST: An excellent job opportunity in one of the larger commercial printing plants in the country. Type of product is varied and consists of matched stationery and advertising layout including illustration and retouching. Must be capable in all phases of layout, lettering, design, retouching and illustration. Good working conditions, employee activities and welfare pro-

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MIDWEST \$8,500-9,500
Production Manager—Offset color okay
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MIDWEST \$7,500
Foreman—Litho Platemaking SOUTH \$7,800
Foreman—Kidder Rotary Pressroom
NEW ENGLAND \$6,000-6,500
Adv. Typographer PAC. N.W. \$8,000-9,000
Typographer—Production Asst.
Assist. composing room foreman \$6,000 up
Mech. Engineer—Design experience \$4,800-7,200
Asst. Plant Engineer MIDWEST to \$8,500
WANTED:—Cameramen, platemakers, strippers, pressmen, compositors, proofreaders, monotype, folder operators, binderymen, etc. Offset pressmen in high demand.

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TOP NOTCH PLATEMAKER, 20 years experience. All types. Desires relocation with medium size plant. Address Box 48, c/o Modern Lithography.

PRODUCTION MANAGER: 20 years widely diversified experience both small and large job plant offset and letterpress operations. Desires to make contact for change during 1956. Prefer Midwest or Southern location. Address Box 49 c/o Modern Lithography.

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'Wanna do better work' or Four color process — Top-Notch craftsman available on short-time consultant basis or—permanent connections as foreman. Address Box 59, c/o Modern Lithography.

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WANTED: A progressive lithographer who is looking for a technical specialist to assume responsibility for plant improvement in methods, standards and control, with emphasis on color. Box 50, c/o Modern Lithography.

TECHNICAL SPECIALIST: With outstanding record of achievement as technical advisor. A unique background of practical experience in lithographic production, trouble-shooting and trade training. Interested in responsible position with progressive plant involving technical supervision and in-plant training. Would also consider commensurate position with supplier or equipment manufacturer. Address Box 51, c/o Modern Lithography.

POSITION WANTED: PLANT MANAGER: Man 48 years old with 30 years of experience in every phase of Lithographic plate making, including process color. Experienced in the operation of all sheet and web fed lithographing presses. Desires position as plant manager. Would not object to a financial investment. Address Box 52, c/o Modern Lithography.

LITHOGRAPHIC SPECIALIST: 25 years experience as journeyman craftsman, superintendent-manager, trade training and customer servicing. Desires job with progressive firm or supplier in up-grading methods, materials and production. Address Box 53, c/o Modern Lithography.

MEXICO: Offset photographer and stripper, 20 years experience in commercial work, would like to work in Mexico or Central America. Can assume supervision. Address Box 58, c/o Modern Lithography.

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ONE COLOR 41x54, Dexter Feeder, 7-1/2 H.P., 3 phase motor, Cleveland Worm Gear speed reducer.
TWO COLOR 41 x 54, Christiansen Steam Feeder, 15 H.P., 3 phase, 220/440 motor.
TWO COLOR 41x54, Dexter Feeder, 10 H.P., 3 phase, 220/440 motor, Cleveland Worm Gear speed reducer. Box 56 Modern Lithography.

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HELP WANTED: Cameraman, stripper for small, modern trade shop. Top wages, permanent position with future for good craftsman. Litho Sales & Service, 1114 Central Avenue, Charleston 2. W. Va.

HELP WANTED: 2-color pressman needed in Miami, Florida. Permanent position. Top notch man only. Address Box 57, c/o *Modern Lithography*.

For Sale:

FOR SALE: Used Hoe 30" x 42" single color sheet fed offset press complete with Dexter Feeder. Excellent condition. Can be seen at New York Trade School. Reasonable. Address Box 54, c/o *Modern Lithography*.

FOR SALE: — 1-Rolled Offset Press, takes roll up to 26" wide with 17 3/8 cut-off, both sheet and rewind delivery. 1-Headliner with 16 masters. 1-22x28 Baum #322 Folder, new in 1953. Knight Press, 4 N. Broadway, Baltimore 31, Md. Eas. 7-4444.

FOR SALE: 39 x 52 Miehle offset press, single color, automatic pile feed, pile delivery. \$2,500 f.o.b. seller's floor. Address Box 55, c/o *Modern Lithography*.

FOR SALE: CURTIS COLOR ANALYST SEPARATION EQUIPMENT—LIKE NEW. . . 1 Chemco 8 x 10" masking camera, model 2600, with Goerz 12" F:9 Apochromat Artar lens and complete Chemco 60"—2 tube 100W fluorescent portable pedestal camera lights. . . 1 Douthitt temperature controlled developing sink, studio type, size 8 x 10". . . 1 Chemco 8 x 10" enlarger, model 2700, with Goerz 12" F:9 Apochromat Artar lens. . . 1 Reflected light 13 1/2 x 13 1/2 special color analyst complete with control. . . original cost \$8,790. Will sell for \$3,200. BESCO, 525 W. 33rd St., New York 1, N.Y.

FOR SALE

45 x 55 Monotype Camera—Arc Lamps—24" Lens-Sink—Can be seen in operation, N.Y.C. Also 90" Pitman Plate Whirler—Litho-Art, Inc., 175 Varick St., N.Y.C.

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FOR SALE: Hoe 2 color 42 x 56 Offset Press: bargain must sell now, also Hoe 42 x 56 single color 220-V-AC electrical equipment — Epsen Lithographing Co., 2000 California St., Omaha, Nebr. Phone Jackson 7000.

FOR SALE: 38" LEVY Circular 200 line screen with holder, manufactured 1953, like new. . . \$3,850. BESCO, 525 W. 33rd St., New York 1, N.Y.

Miscellaneous:

Still out front with Photographic Color Correction Service. You do not require specialized color skills or equipment. Robert C. Kroll Photographic Studio, 1350 Pierce Ave., St. Louis 10, Mo.

LITHO CLUB

(Continued from Page 89)

were guests of the club. A project to aid the Home is planned for this year. It was announced that a camera school to be held in April or May is under consideration. Preliminary plans call for one meeting per week for six to eight weeks.

Cincinnati

Herbold Is Guest Speaker

Advantages and disadvantages of incorporating a lithography firm were discussed by attorney Lyle L. Herbold at the Cincinnati Litho Club's monthly meeting Feb. 14 at the Golden Goose Restaurant, Kentucky, O.

It was announced that a question box round table will become a regular part of this year's meetings. D. G. Flanagan, Club president, appointed the following committee chairmen: educational, William E. Staudt, Jr., Young & Klein, Inc.; membership, Joseph Hoffer, Gibson & Perin Co., and boatride, Howard Woods, Nielson Lithographing Co.

Houston

Plate Demonstration Viewed

Houston Litho Club met at Houston Lithographing Corp. Feb. 7 for a plant tour and plate demonstration program. Aubrey Frazier and litho men from his plant greeted the 75 members and guests. Carl B. Harris, Sinclair & Valentine Co., presented a demonstration of the latest tech-

niques in surface, deep etch and tri-metal plate making.

The meeting was highlighted by a presentation of simplified and standardized methods of plate making that have been worked out by S & V. Mr. Harris mentioned that a grained aluminum surface plate was made using recently-developed Sinvalco chemicals. The coating used on the plate showed exceptional contrast between the image and non-image areas. This resulted in a plate with a very tough image and a non-image area that was developed easily and cleanly. No pre-etch or other pre-treatment was required with this plate.

Mr. Harris said that many platemakers prefer to use a pre-etch. Pre-etch is essential if the plate is to be rubbed up in the sink before the final etch. Other platemakers use a pre-etch as an added safeguard to be sure that the plate will develop easily and cleanly.

The next plate demonstrated was a copperized aluminum deep etch plate. This demonstration brought out the fact that with the exception of the actual copperizing operation, the procedure used was the same as for a conventional deep etch plate. The copperizing is done after the alcohol wash. A solution is applied that chemically deposits a thin layer of copper on the image area. The point was made that copper is a very ink receptive metal and it also acts as a strong bond between the lacquer and the aluminum.

A multi-metal plate was used for the final demonstration. The plate used had an aluminum base over which were thin layers of copper and chromium. This plate was processed by coating, exposing and developing in a manner similar to the preceding deep etch plate. After developing, the chromium in the image area was etched away, exposing the copper. The copper was then greased up and the developing ink applied. The stencil was scrubbed off and the plate was finished up in the usual manner. Following the demonstration the new Sinclair & Valentine color movie on ink was shown. A coffee and doughnut bar was kept busy.

IMPORTANT!

Special Convention Issue — MAY

of

MODERN LITHOGRAPHY

**to be brought out at the
51st annual convention of the**

LITHOGRAPHERS NATIONAL ASSOCIATION

Chicago will be host to the Lithographers National Association's 51st annual convention, May 10-12, at the Drake Hotel. Advertisers planning to use space in the convention issue of Modern Lithography will note that the convention is being held one month earlier than in past years. MAY is the convention issue, with complete program listings and a special section devoted to background and historical development of the Association and the lithographic industry.

Advertising Deadline for the May Issue is April 10

MODERN LITHOGRAPHY

Box 31

Caldwell, N. J.

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to ADVERTISERS

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(The advertisers' Index has been carefully checked but no responsibility can be assumed for errors or omissions.)

Tale Ends

AN interesting postscript to our article on lithographing music at Mahony & Roesse (see page 48) was given us as we went to press by Jim Van Gorder, the president. He told ML of the installation of a background music system in the offices and plant. The Seeburg company, which makes those giant "juke boxes" for soda fountains, puts out a model for industrial use. Far as Seeburg knows, the M & R installation is the first in a printing plant (although some printing company offices have the setup). Voulme is adjustable near the presses.

Jim reported a definite morale boost during the test period. The machine works much like the normal juke box. You select up to a hundred selections on 45 r.p.m. extended play records and they are played automatically, in the chosen sequence. Only difference is, you don't need nickels.

ml

One of the "... and Lithography" trade magazines a Johnny-come-lately to the offset field, recently ran an editorial calling for an alliance of letterpress printers with engravers, lest the latter succumb to lack of business because of the dastardly inroads of offset. It went on to view with alarm the nightmarish effects on letterpress if "all U.S. magazines and newspapers switched to offset. . ." You'd think they'd temper those forebodings with a little consideration for that extra word they were so quick to tack on to their title.

Just to make sure all the advertising agencies and suppliers know we cover the lithographic field, we've been thinking of changing the name of ML to keep in vogue. We're considering *Modern Lithography and Lithography*."

ml

Mike Bruno, research head at the

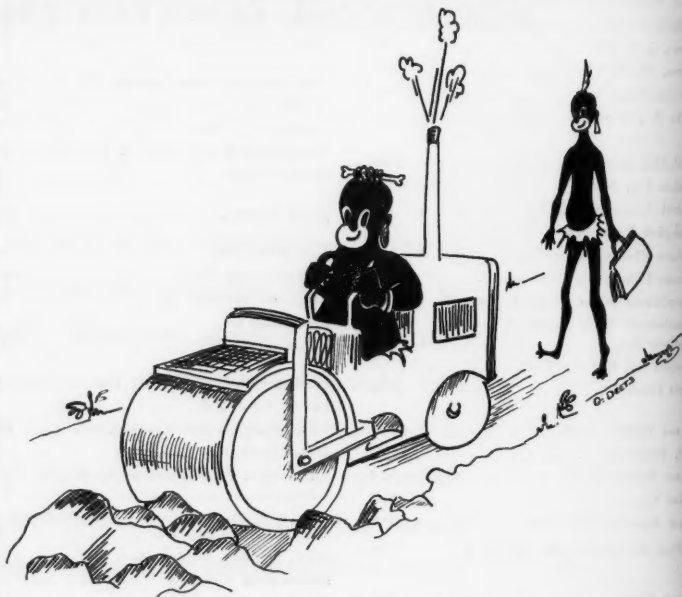
Lithographic Technical Foundation, had his picture taken with a brand new Polaroid Land camera at the LTF meeting in New York last month. Then he was given the camera, complete with flash attachment and handy carrying case. LTF members in attendance autographed Mike's photo

when it was developed a minute later and completed their gift—in honor of Mike's 10 years with the Foundation.



A pretty start for PIA's Self-Advertising Contest.

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Ease your salesman's way to the client's door by giving him the benefit of some advertising in advance of his call. Take some of the bumps and rocks out of his path, so he can concentrate his own time on actual selling and won't have to waste nine-tenths of his time with the prospective buyer explaining who he is, what his company makes and why he's there. Yes, intelligent advertising can smooth the path to increased sales, — for your staff too.

And in the offset lithography field the proved and tested medium to get your sales message across, — in advance of your salesman's call — is still

MODERN LITHOGRAPHY

Box 31

Caldwell, N. J.

Member, Audit Bureau of Circulations



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M-C Folding Book
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Zena
Catskill
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OFFSET-LITHO

Hi-Arts Litho C.1S.
Zenagloss C.2S.
Zenagloss Cover C.2S.
Lithogloss C.1S.
Catskill Litho C.1S.
Catskill Offset C.2S.
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NEW GRINDER LINE ASSURES COST-CUTTING ACCURACY

High-Precision "Graphic" Knife Grinders Offered Exclusively by Harris-Seybold

Designed for the graphic arts industry, a new line of "Graphic" Knife Grinders is being offered by Harris-Seybold exclusively. Developed by Hanchett Manufacturing Co., in co-operation with Harris-Seybold engineers, the machines are hand-crafted to precision tolerances. They produce an edge on paper cutter knives that cuts cleaner, lasts longer — stretching the interval between grindings to boost your profits.

Greater Accuracy Pays Off

Hand-scraped table ways plus exclusive "floating action" hydraulic drive mechanism keeps table travel smooth and vibration-free; resulting finish on knife edges is keener, truer — allows more cuts per knife change for the user.

Minimum Maintenance Required

Wear-resistant Formica bushings and double oil seals on drive pistons give years of trouble-free service; filtered lubrication keeps abrasive particles away from critical bearing surfaces, prolonging their life; all components are heavy-duty — built to last longer.

Sizes range from 60 inches to 130 inches and larger in the "Graphic" line. Other Hanchett Knife Grinders with different capacities also available. Call your nearest Harris-Seybold representative today for additional details.

Harris-Seybold Company
Special Products Division
4510 East 71st Street
Cleveland 5, Ohio

☐ Please send me
Special Products Catalog

Also, information about:

- ☐ "Graphic" Knife Grinder
☐ Macey Collator
☐ Herbert Oxy Cold Bar

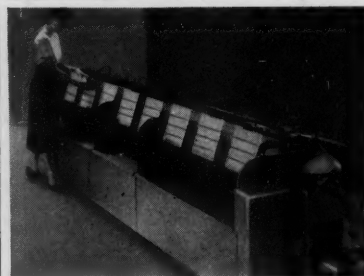
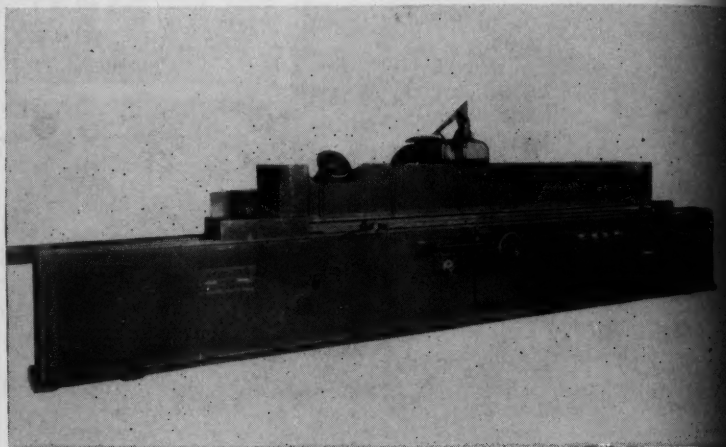
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Macey Collators Offer Speed, Accuracy, Versatility

Able to get both large and small collating jobs out rapidly with only one semi-skilled operator, Macey Collators offer sixteen models in 4, 8, 12 and 16-station combinations to mechanize your hand-gathering operations.

Example: A standard 8-station Macey will gather up to 32,000 sheets per hour (that's considerably more than 8 times as fast as hand gathering). Installations often pay for themselves in less than a year.

The Macey Collator checks the number of sheets in each set with accuracy unmatched by human hands. Versatile? Handles stock from onionskin to $\frac{1}{8}$ " cardboard, sizes from 3 x 5" to 12 x 17", depending on the model. Collates sets of varying weights and sizes — including folded sheets and signatures.

Mail the coupon for details or call your Harris-Seybold representative for demonstration.

**HARRIS
SEYBOLD
COMPANY**

Production, Profits Climb With Oxy Cold Bar Static Control

Static electricity is often the cause of jams on the feeder table or delivery, poor register or bad jogging. Result? Low production eating into your profit margin.

The Herbert Oxy Cold Bar helps minimize static at trouble spots by ionizing air near stock surface — effectively neutralizing static present. Higher press speeds are possible, boosting your production.

Controlled voltage at emitter points safely eliminates shocks, sparks or radiation. Installation is easy. Simple instructions are included with each unit. No need for special wiring; plugs into 115-volt, 60-cycle outlet. One transformer will serve several units on different machines, if desired.

Like to match interesting production increases reported by many users? Call your nearest Harris-Seybold representative or return the coupon.



SPECIAL PRODUCTS DIVISION

Products for Plate Room, Camera Room,
Composing Room, Press Room and Bindery Use

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